



Canada

Updated version, November 2006.

Principles and general objectives of education

Education in Canada seeks to attain what are generally defined as the four major goals for schooling: cultivation of mind; vocational preparation; moral and civic development; and individual development. While the predominant focus of Canadian education is on progressive or child-centred education, there has been some return to ensuring that there is an adequate and strong treatment of core subjects and skills within that child-centred approach, which needs not ignore standards and is not always based on the use of experimental learning methods. In fact, it would be fair to say that the traditional or teacher-directed model has regained some momentum in the past few years through provincial trends to basic core subjects, fewer electives, and large-scale provincial testing in specific subject areas at particular grade levels.

Safeguarding and promoting traditional cultures within a pluralistic society, and fostering understanding, awareness, and acceptance of the diverse cultures represented in the Canadian social mosaic have become important educational and societal goals in Canada. On the other hand, it is widely recognized throughout the country that positive attitudes towards progress in science and technology also require emphasis.

In broader terms, three common social and educational values have largely defined Canadian attitudes toward public education. The first of these values is equality of access. Originally defined in the context of making public education available to a sparse population spanning an entire continent, equality of access now is seen primarily as the elimination of barriers to education caused by language, gender, race or physical or mental disability. Closely related to this notion of access is the concept of uniformity of educational resources—the quality and choice of programmes should be not diminished by where one lives. Thirdly, cultural pluralism is an important value. The advent of multiculturalism in the 1970s, an important policy supported by several levels of governments and societal institutions, has made respect for diversity an important challenge for schools.

However, it must be noted that the administration of education is centred in the constitutionally secured right of the provinces and territories to exclusive jurisdiction over education within the federative system of shared powers. Canada is comprised of ten provinces and three territories, and each of them has developed its own educational structures and institutions. Therefore, they effectively constitute thirteen education systems, with some similarities and large differences among them.

Current educational priorities and concerns

Concerns related to the fast and sweeping changes taking place in Canadian society through globalization and internationalization, growth in information and communications technology, immigration and population shifts toward urban centres,



and fundamental changes in the nature of work and in the labour market, have led ministers of the various provinces and territories to step up their efforts to introduce major changes in education.

These changes, centred around five features (i.e. accountability, high quality education, accessibility, mobility and responsiveness to learners' needs), have been initiated over the 1990s. There have been a host of transformations concerning reorganization and restructuring, funding reform, curriculum renewal, early childhood development, performance assessment, emergence of information and communication technologies at all levels, cooperation and shared services, the transition to the job market, and the quality of education.

Reorganization and restructuring: Since the early 1990s, deficits have led governments to reduce their budgets and look for increased efficiency in services and service delivery. During the 1980s and 1990s, governments merged departments in order to reduce the administrative costs of education. In some jurisdictions, a single department is now responsible for various levels of education. Several provinces have also re-centralized essential functions, until now given over to local administrations, such as programming, funding, and evaluation of teaching staff. Most provinces have also reduced the number of school boards, commissions or districts in recent years. Furthermore, the majority of provinces and territories have adopted strategies to ensure that government departments, local administrations and elementary and secondary educational institutions are accountable to parents and taxpayers on the ways they spend public money and on their ability to achieve the desired outcomes in terms of quality of learning.

Funding reform: The cuts in funding to postsecondary education and increased private versus public funding in that area have resulted in increased tuition fees and student debt during the 1990s. Most education administrations have attempted in recent years to remedy the situation through special measures such as tuition freezes or controls or by altering the terms of student loan repayments. Although governments reduced public debt and deficits through reduced grants to education in the 1990s, funding was then partly restored at the beginning of the new decade. Generally speaking, new spending is targeted toward specific government initiatives in areas such as performance assessment and curriculum renewal, early childhood development, information and communication technologies, and postsecondary training and teaching, while reducing administrative expenses.

Curriculum renewal: Curricula have been overhauled to better prepare graduates for the new era of information, communication and globalization. In recent years, there has been a return to core subjects such as languages and mathematics, as well as increased emphasis on science and technology. Themes of globalization, competitiveness and productivity have guided many administrations in this effort.

Early childhood development: Early childhood development took on great importance for all education administrations at the end of the twentieth century. Every province and territory recognized that early childhood development represents an investment in Canada's future and that early intervention results in lasting advantages that will extend throughout a child's lifetime. The federal government and provincial and territorial governments (with the exception of Quebec) have adopted an Early



Childhood Development Initiative that aims to: promote health during pregnancy, at birth and throughout early childhood; improve support for parents and families; strengthen early childhood development, learning and child care; strengthen community support. The Quebec government has set up its own early childhood development programmes.

Performance assessment: With their vision of responsibility and accountability, governments have placed great emphasis in recent years on the importance of reporting to students, parents and taxpayers on outcomes achieved by educational institutions and administrations. To do this, all administrations have adopted strategies and programs to assess student performance.

Emergence of information and communication technologies (ICT) at all levels: Canada has set itself the challenge of taking action to get all schools in Canada connected to the Internet. This objective was achieved in 1999. A new objective consists in ensuring high-speed, regular access to the Internet for all students and ensuring improved operation of the new education technologies.

The transition to the job market: Initiatives to help learners make the transition from their studies to the job market include changes in vocational and technical education, apprenticeship programs, vocational guidance, and co-operative education programs. Emphasis is also being placed on programmes that promote partnerships between the postsecondary education system and industry, so that students gain relevant skills. Elsewhere, the emphasis is on community programmes intended to increase community participation in decision-making with respect to vocational training and retraining. Access to training programmes through ICT is also taking on increased importance.

The quality of education: Improving students' performance and preparing them for globalization and the information age require on-going improvement in the quality of education. In addition to steps taken to overhaul programmes and institute student testing, most administrations have adopted strategies to upgrade and improve supervision and professional development for teaching staff.

The following system-wide trends have emerged:

- Concerted regional and national efforts: Increased cooperation and sharing of services in areas such as curriculum development, student performance appraisal, program assessment, information technology and transfer of credits between institutions.
- Greater accountability to the public.
- Acceptance of information technology as an integral part of education: A key priority is preparing students, from primary levels through to high school graduation, to participate in the information age. In most cases, this means determining the skills that all students must acquire, making major investment in information processing hardware, software and wiring (often in conjunction with the private sector), ensuring the professional development of teaching staff, and connecting all institutions to the Internet.



- Partnerships in education. Most jurisdictions have ongoing initiatives to establish and sponsor linkages among educational institutions, parents, community-based organizations, and the private sector. Many partnerships focus on integrating information technologies into the education systems, or on helping students make a smooth transition to the workplace.
- Declining education grants: Efforts are being made to direct shrinking resources toward the classroom rather than the administrative sector.
- Continued focus on information technologies. Efforts are being made to ensure that the education sector remains abreast of developments in information technologies. Priorities continue to focus on integrating information technologies in the curriculum, improving the ratio of students to computers, and promoting partnerships with the private sector.

At recent meetings of the Council of Ministers of Education, Canada (CMEC) the provincial and territorial ministers of education defined their three key priorities for the coming years: Aboriginal education, literacy, and postsecondary capacity. They also outlined action plans for joint activities that might involve the federal government and other stakeholders, as appropriate.

In the 2001 Census, almost one million people identified themselves as Aboriginal persons—that is Indians, Métis, or Inuit, representing 3.3% of the population. All provinces and territories have been implementing changes that focus on the inclusion of Aboriginal communities and parents in educational planning and the revision of curriculum and teaching practices. Their goal is to ensure that all aspects of education are more relevant to Aboriginal learners and reflect Aboriginal history, culture, and traditions for the benefit of all students. As outlined in their new action plan, the ministries and departments of education in the provinces and territories will work in collaboration with local Aboriginal representatives, education stakeholders, and the federal government to identify and share best practices in Aboriginal education, including teacher training and recruitment, and to establish and/or share education indicators specific to Aboriginal student outcomes. This information will then be used to identify further actions to improve results achieved by Aboriginal learners.

Funding, programmes, and resources continue to be increased in all the provinces and territories to benefit school-aged and adult learners and to help them achieve higher levels of literacy. The CMEC's action plan calls for two forums to be held in the near future: the first on school-age literacy and the second on adult literacy. Their purpose will be to help identify concrete initiatives to increase literacy significantly among children, youth, and adults.

Over the next ten years, Canadian universities are expecting an additional 200,000 students in a system that currently accommodates over 785,000. With the demand for seats still rising, there is more pressure to upgrade and construct facilities, to attract and retain faculty and staff, and to alleviate the other problems related to chronic underfunding. For example, one challenge in the decade ahead is the replacement of up to 20,000 university faculty, most of whom are taking retirement, and the hiring of an additional 10,000 new faculty to address the increasing



enrolment. Other aspects of postsecondary capacity that are of particular concern are the accelerating need for and costs of research materials, laboratory equipment, and information and communications technology; the implications of long-deferred building maintenance; institutional capacity to absorb the multiple indirect costs of research; the impact of demographic changes on regional institutions; the need for more graduate students in specific fields and to meet institutional needs for future faculty; and the maintenance of quality in their educational offerings and their research while coping with the increasing numbers of students and the societal, business, and industrial demands for well-educated graduates. One particular area of concern about access to postsecondary education is the debt load that students acquire and the impact this has on who attends or defers or avoids postsecondary institutions: about one-half of college graduates and university graduates with bachelor's degrees from the class of 2000 left school owing money for their education, mostly in the form of government student loans. Student assistance programmes from the federal, provincial, and territorial governments are undergoing considerable expansion to provide wider access to postsecondary education, by encouraging students to continue to graduation through the reduction or forgiveness of debt and interest; increasing grants, bursaries, and scholarships; and developing funding solutions that respond to the changing needs of a diverse range of students. Some jurisdictions have also brought in tuition freezes.

In addition to defining three key priorities, the provinces and territories agreed on the following policy and research objectives that will help them reach their goal of building the best education systems in the world in which every learner succeeds: students with special needs, healthy schools, technology and e-learning, teacher training, learning outcomes, and transitions. These issues will continue to receive priority attention in each jurisdiction as well as on a pan-Canadian basis. (CMEC, 2005).

Laws and other basic regulations concerning education

Canada is made up of ten provinces and three territories. In the context of a federal system in which powers are divided between the federal government and the provinces and territories, the latter are responsible for education. The **Constitution Act of 1867** (section 93) stipulates that "[I]n and for each Province the Legislature may exclusively make Laws in relation to Education [...]". Thus, ministries and departments of education, through education or school acts and attendant regulations, typically control: the nature of the school curriculum; the level to which schools are financed; the training and certification required of teachers; the methods of assessment and the standards for student testing; the structures to sustain school governance and management; the establishment of school boards; and the design and distribution of curriculum materials. Every province and territory set up educational structures and institutions that were unique to it and which, despite the many similarities, reflect the distinctive character of regions separated by considerable distances and the diversity of the country's historical and cultural heritage.

In addition to the plenary power given to the provinces over education, the Constitution Act and the **Charter of Rights and Freedoms** (1982) contain specific rights to denominational education and to minority-language education, with assurances also made that all Canadian citizens must receive reasonable protection



and equal benefits from the law regardless to race, religion, gender, and national origin. In this context, denominational rights refer to Roman Catholics or Protestants having their own, autonomous school systems; minority-language rights refer to the educational rights of the French-speaking or English-speaking linguistic minorities.

Canada's two official languages are English (the first language of approximately 59% of the population) and French, the first language of approximately 23%. The majority of Francophones live in Quebec, where they form 82% of the population, but there are also large numbers of Francophones in New Brunswick, Ontario and Manitoba. Education in Canada is offered in both official languages, but to varying degrees depending on the region. Under the Canadian Charter of Rights and Freedoms, education in the language of the minority is guaranteed at the elementary and secondary levels to members of the minority community everywhere in the country, wherever numbers warrant French and English are also taught as second languages.

Legislation in individual provinces consists of provincial statutes, along with bylaws and regulations of local school boards or commissions that set out the division of responsibilities in the area of public instruction. The Government of Canada passed two legislative acts, the **Northwest Territories Act** and the **Yukon Act**, giving the two territories responsibility for education services, for which the federal government assumes funding. The new territory of Nunavut was created in 1999. Each territory has created its own department or ministry of education and manages the delivery of education services. The power enjoyed by provinces and territories over education gives them the authority to delegate power to local school boards or commissions, or to other agencies established or recognized by the provinces or territories.

The federal government, through its Department of Indian Affairs and Northern Development, is also responsible for education of Canada's Native peoples (registered Indians and Inuit people resident on reserve) at the elementary and secondary levels, as well as education and training in the Armed Forces, Coast Guard, and Correctional (penitentiary) Services.

The ages for compulsory schooling vary from one jurisdiction to another, but most require attendance in school from age 6 or 7 to age 16. Public education is provided free to all Canadian citizens and permanent residents up to the end of secondary school (age 18 in most jurisdictions).

Administration and management of the education systems

Unlike most states, Canada does not have a national office for education. Control over educational policy in each province and territory resides with a minister who is an elected member of the legislature and appointed to that post by the government leader of the jurisdiction. The legal basis of the ministry's authority and the areas of provincial or territorial and local control, are spelled out in school or education acts and attendant regulations. The operational aspects of public schooling are the domain of an education civil service, which provides the administrative and supervisory structure. The responsibility for policy development and management information is



in the hands of the deputy minister, a career civil servant, who may or may not be an educator.

Ministries and **departments** provide educational, administrative, financial management, and school support functions. They are responsible for defining educational services to be provided to the entire population of their jurisdiction, as well as the general framework within which these will be organized. They set schooling requirements and rules governing teachers' working conditions and financial resources earmarked for education. Through data collection, processing, and dissemination, they contribute to the planning and assessment process, and inform school populations and the public. Their responsibilities also include curriculum development, assessment, funding formulas, and technological innovation.

This array of ministerial capacities features traditional concerns (e.g. curriculum development, assessment) and more recent additions, such as equity (e.g. community, race, and gender) and technological innovation (e.g. telecommunications). Most ministries and departments of education in Canada share this general orientation.

Local governance of education is usually entrusted to **school boards** (or school districts, or school divisions, or the District Education Councils in New Brunswick). Members of school boards in the provinces and territories are elected by public ballot. The powers and duties of these agencies are set out in provincial or territorial legislation governing that area, and are fairly consistent throughout Canada. Their authority usually includes the operation and administration (including financial) of the schools within their board, staffing responsibilities, enrolment of students, implementation of the provincial/territorial curriculum, and initiation of proposals for new construction or other major capital expenditures.

During the 1990s and early in 2000, certain provinces re-centralized a number of functions which until that time had been delegated to school boards. Re-centralization occurred by means of collaboration between, or amalgamation of, ministries and school boards, and resulted in a reduction in the number of school boards and trustees. In almost all jurisdictions where restructuring took place, school councils were set up to increase parents' participation in decision making in schools.

The number of school boards varies widely across Canada, and the complexity in types largely reflects whether the jurisdiction makes provision for separate or denominational schools and the presence of a linguistic minority (English or French) with constitutional guarantees for local governance structures. In most jurisdictions, school boards reveal a quilt-work of public, denominational (religious) and/or Francophone/Anglophone minority-language school board structures.

In several provinces, publicly funded separate school boards and separate schools exist. The latter are sometimes referred to as denominational schools. In most cases, they are Roman Catholic and provide some instruction in that faith. A child is normally expected to follow the faith of the school to be eligible to attend. Such schools are to be distinguished from public or non-denominational schools.



Until recently, Quebec constituted an exception since, in that province, separate schools were non-denominational while public schools were denominational (Roman Catholic or Protestant). However, the governments of Quebec and Newfoundland and Labrador have won constitutional amendments enabling them to create public, language-based, non-denominational school boards. Ontario created language-based school boards, both denominational and non-denominational, in 1996. In New Brunswick, the provincial government abolished school boards in 1996 and replaced them with education councils made up of parents. In May 2001, the government proposed reinstating school boards, while providing an enhanced role for parents and reducing the number of boards.

While the **Federal Government** does not share in the exercise of direct power over education, it does exert a degree of influence over policies, standards and objectives in this sector.

Since 1963 the federal role, particularly in post-secondary education, has been advanced through the office of the **Department of Secretary of State** (and since 1993, through the **Department of Human Resources Development Canada—HRDC**). These departments fund dozens of programmes directly or indirectly, especially in the fields of technical and vocational education; make federal transfers to the provinces for health and education; finance university research, student assistance, and federal post-secondary institutions; and support for the Official Languages Act (funding for the promotion of official-language education is provided by the **Department of Canadian Heritage**). As mentioned, the education of Registered Indians living on reserves falls within the responsibility of the federal government, through its **Department of Indian and Northern Affairs (INAC)**. INAC is responsible for the elementary and secondary education of Registered Indian children living on reserves, either through First Nations-operated schools on the reserves, provincially administered schools off the reserves, or federal schools operated by INAC on the reserves. The department also provides financial assistance (through administering authorities such as First Nations councils) to eligible Registered Indian students in postsecondary education programmes, and it funds some programmes designed for First Nations students at both First Nations and other postsecondary institutions. Educational services for Registered Indians in the Yukon and both Registered Indians and Inuit in the Northwest Territories are provided by the respective territorial governments. Registered Indians and Inuit in northern Quebec receive educational services from Quebec under the *James Bay and Northern Quebec Agreement*. First Nations children and youth living off reserves are educated in the public elementary and secondary schools in their cities, towns, and communities.

A national body, the **Council of Ministers of Education, Canada**, (CMEC) was established in 1967 by the ministers of education to promote discussion on matters of mutual interest and further collaboration and consultation among the provinces and territories; to liaise with the federal government; and to represent Canadian education internationally. Through the CMEC, ministers of education are currently working on a number of initiatives. CMEC initiatives are divided into two categories: the basic pan-Canadian strategy activities, in which all jurisdictions participate; and consortium activities, which provinces and territories choose to participate in and fund, according to their interests. Aware of the need for collaboration at the pan-Canadian level, the CMEC adopted the following priorities:



focusing on education outcomes; sharing information on best practices; collaborating on curriculum initiatives; promoting policy-related research; strengthening the post-secondary sector; supporting international activities; promoting mobility; and enhancing CMEC as a forum for effective and fruitful cooperation with the federal government.

The CMEC launched in 1989 the **School Achievement Indicators Programme** (SAIP), in which a consortium of provinces worked together to produce and implement, for the first time, a national assessment instrument for elementary and secondary reading, writing, and mathematics. In 1989, CMEC also formed the joint venture with Statistics Canada, called the **Canadian Education Statistics Council** (CESC), to provide and disseminate comparable educational statistics.

Another national body serving a wide array of clients is the **Canadian Education Association** (CEA), established in 1891. CEA functions as a clearinghouse for ideas and issues for educators and educational policy-makers at all levels of the school system across the country, regularly publishes newsletters, periodicals, and special reports, and features a well-resourced library.

There is no national accrediting body in the country for evaluating universities or programmes. At the provincial level, legislative acts grant charters to post-secondary institutions. Membership in post-secondary, national non-governmental organizations, such as the **Association of Universities and Colleges of Canada** (AUCC) and the **Association of Canadian Community Colleges** (ACCC), is a general indication that an institution is meeting acceptable standards.

The federal-provincial arrangements for education have both advantages and disadvantages. On the one hand, each province can respond to the particular educational needs of its people. Linguistic and cultural factors, for example, create different and distinct educational implications for Francophones in Quebec, Native peoples in Saskatchewan, provinces with large urban populations such as Ontario and British Columbia, and provinces with predominantly rural populations such as Prince Edward Island and Newfoundland. On the other hand, the complexities of arrangements for collaborating on pan-Canadian educational initiatives at times can impede consistent progress and a coordinated approach to education.

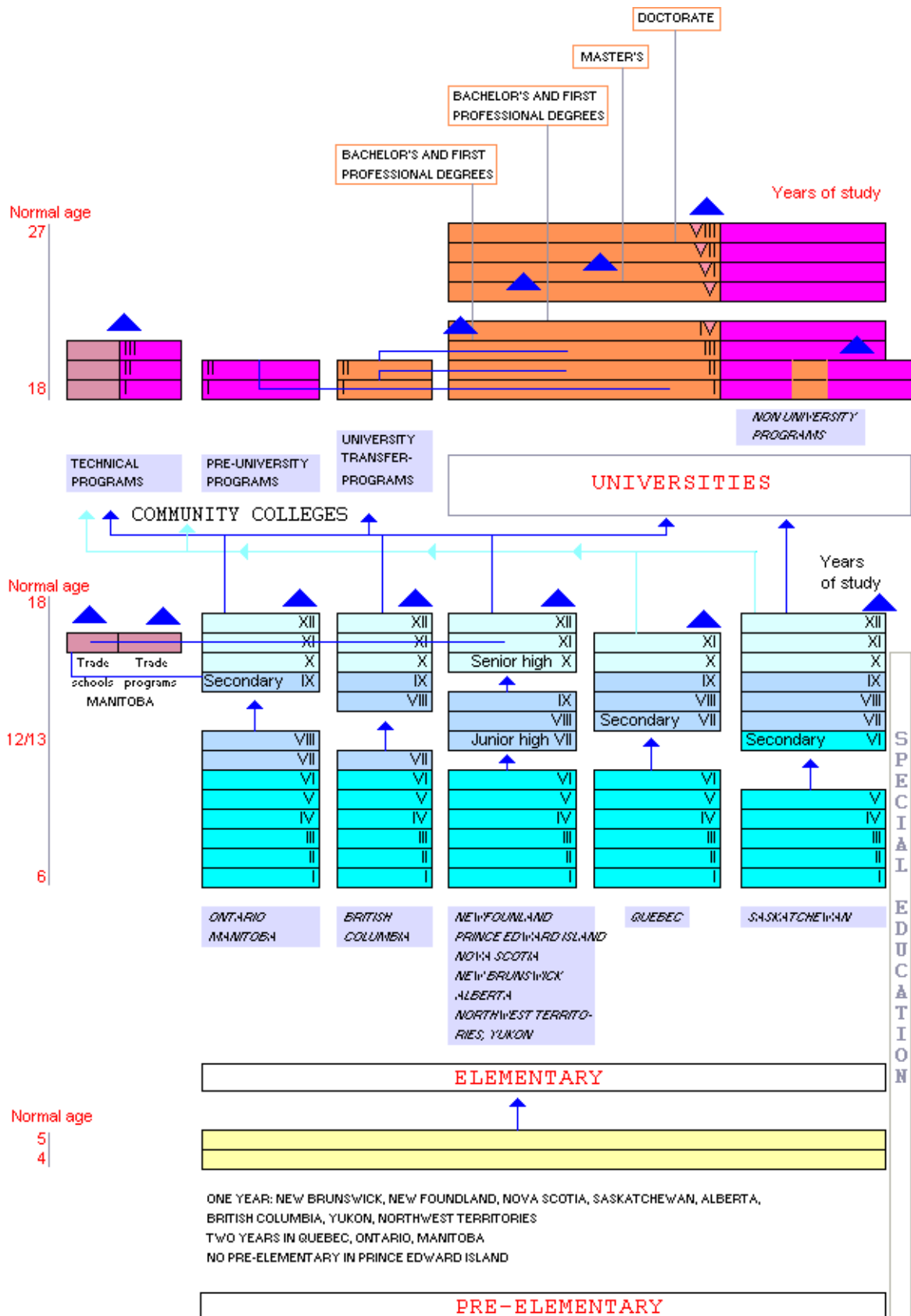
However, as mentioned above, government ministries and their agencies are beginning to work closely together, to forge school-based integrated services for example. School boards have increased their level of co-operation with each other and with other public agencies in an effort to avoid duplication and save money. Many boards have recently collaborated in areas such as purchasing, professional development, curriculum development, and transportation.

At the national level, educational policy-makers, administrators, and educators consult through CMEC and various nongovernmental organizations such as CEA, AUCC, ACCC, and the *Association canadienne d'éducation de langue française* (ACELF). Also noted above is the federal influence on education policy through HRDC, through funding of special programmes, and through various post-secondary initiatives influencing education.



Structure and organization of the education system

Canada: structure of the education system(s)



Canada: structure of school education by jurisdiction

Newfoundland and Labrador	P	1	2	3	4	5	6	7	8	9	10	11	12		
Prince Edward Island	P	1	2	3	4	5	6	7	8	9	10	11	12		
Nova Scotia	P	1	2	3	4	5	6	7	8	9	10	11	12		
New Brunswick - English	P	1	2	3	4	5	6	7	8	9	10	11	12		
New Brunswick - French	P	1	2	3	4	5	6	7	8	9	10	11	12		
Quebec - General	P	P	1	2	3	4	5	6	7	8	9	10	11		
Quebec - Vocational											10	11	12	13	
Ontario	P	P	1	2	3	4	5	6	7	8	9	10	11	12	
Manitoba	P	P	1	2	3	4	5	6	7	8	9	10	11	12	
Saskatchewan	P	P	P	1	2	3	4	5	6	7	8	9	10	11	12
Alberta	P	P	P	1	2	3	4	5	6	7	8	9	10	11	12
British Columbia	P	1	2	3	4	5	6	7	8	9	10	11	12		
Yukon	P	1	2	3	4	5	6	7	8	9	10	11	12		
Northwest Territories	P	1	2	3	4	5	6	7	8	9	10	11	12		
Nunavut	P	1	2	3	4	5	6	7	8	9	10	11	12		

P	Pre-elementary, not universally available
P	Pre-elementary, universally available
Elementary/Primary	Elementary/Primary
Junior high/Middle	Junior high/Middle
Senior high	Senior high
Secondary	Secondary

Source: CMEC, *Education in Canada*. 2005.

Pre-school education

Pre-school programmes or kindergartens, which are operated by the local education authorities and provide one year of pre-first grade, non-compulsory education for 5-year-olds, are offered by all provinces and territories with the exception of Prince Edward Island, where kindergarten for 5-year-olds is considered a basic part of the elementary programme and is compulsory. Despite policy differences between jurisdictions, in 1996-97 between one-third and one-half of all 3- to 5-year-olds were attending a pre-elementary programme in most jurisdictions. Between 1986-87 and 1996-97 the enrolment rate for pre-elementary education increased by 3 percentage points, from 38.8% to 41.6%. Recent data show that at a pan-Canadian level, 95% of 5-year-olds attend pre-elementary or elementary school and over 40% of 4-year-olds are enrolled in junior kindergarten, with large variations among the jurisdictions. The intensity of the programmes also varies, with full-day and half-day programmes, depending on the school board. (CMEC, 2005).

Primary education

Elementary education in most provinces covers the first six to eight years of compulsory schooling. Grade I usually begins when a child has reached the age of 6, although most provinces now offer an optional year or two of preparation (junior kindergarten and senior kindergarten for 4- and 5-year-olds). The point of transition from elementary to secondary school varies from one jurisdiction to another, and even within a particular jurisdiction. Some school boards break up the elementary-



secondary continuum into schools that group together, for example, kindergarten to Grade VI, Grades VII-IX (junior high), and Grades X-XII (senior high).

Secondary education

After six to eight years of elementary education, pupils proceed to a secondary education programme to complete twelve years of schooling. A great variety of programmes—vocational (job training) as well as academic—are offered at the secondary level, usually within the same school. Canada has generally moved away from separate secondary institutions for vocational or work-related training and academic or university preparatory streams. Vocational courses are typically offered during the last two years of secondary school, though some specialization courses may be taken earlier. Short programmes preparing students to practice various trades are also offered, for students who do not wish to prolong their studies, or who do not want to obtain specialized vocational training. The first two years at the secondary level usually offer a core of compulsory subjects supplemented by some optional subjects. In the final two years, there are fewer compulsory subjects so that students can choose more optional courses in specialized programmes that prepare them either to enter the job market or to meet the entrance requirements of the postsecondary college, university, or institution of their choice. Students who pass the required number of both compulsory and optional courses graduate with a Secondary School Diploma. For example, in Ontario since September 1999, students must complete 30 credits during the four-year secondary school programme—18 compulsory and 12 optional. They must also pass the Ontario Secondary School Literacy Test in order to graduate.

Once secondary school has been successfully completed, a student may apply to a college or a university, depending on the region and on whether he/she qualifies. Students in Quebec, having completed secondary schooling in eleven as opposed to twelve years, must obtain a college diploma in order to be admitted into a university programme. The colleges, called *cégeps* (*collèges d'enseignement général et professionnel*), offer both a general programme that leads to university admission, and a professional programme that prepares students for the labour force. In Ontario, students must complete six Ontario Academic Credit courses in order to be admitted to a university programme. This can be accomplished during the four-year secondary school programme, or during an additional year after completion of Grade XII.

Post-secondary education is available in both government-supported and private institutions, some of which award degrees and some of which do not. Colleges such as technical and vocational institutions, community colleges, *cégeps* and other institutes of technology, offer programmes for continuing education and for developing skills for careers in business, the applied arts, technology, social services and some health sciences. Programmes vary in length from six months to three years. There are also private vocational or job-training colleges in some provinces. In general, colleges award diplomas or certificates only; they do not award academic degrees.

Many colleges offer, in co-operation with industry and business partners, professional development services or specialized programmes in high-technology areas. Technical training and technology programmes prepare students for



employment in the trades, industry or agriculture, or for a job as a professional technician or technologist. A certificate is granted for programmes requiring one year of study (twenty-four to thirty weeks). Two-year or three-year programmes lead to a diploma. Some programmes last four years; these are made up of courses of an academic rather than a vocational nature.

The British Columbia and Alberta community college systems allow students to complete either a diploma program or two years of academic course work toward a bachelor's degree. Some students may decide not to continue, but others have the opportunity to complete the third and fourth years at a university-college or university to earn a degree. Only the universities may grant graduate degrees. In other provinces, students must have their completed college courses evaluated for equivalency in order to receive credit when they apply for admission to a university.

Programmes leading to degrees are offered in universities or, as they are sometimes known, degree-granting institutions. Most Canadian universities, especially those in the larger cities, offer a complete range of programmes. Others are more specialized, and have developed areas of excellence. There are also some specialized institutions that are not campus-based and offer university programmes through correspondence courses and distance education. It is possible to study at three different levels, which lead to a bachelor's, master's or doctoral degree. Not all universities offer graduate studies (master's and doctorates). In addition to degree programmes, most universities offer diploma and certificate programmes. These can be either at the undergraduate or graduate level, and can range from one to three years in duration.

Bachelor's degrees can take either three or four years of study, depending on the programme and the province. Universities in some provinces award general pass degrees in three years, and require a fourth year for an honours degree. Other provinces require four years of study regardless of whether it is for a general or an honours degree. In Newfoundland and Labrador a general degree is completed in four years (40 courses) and an honours degree in five years. Master's degrees require one or two years of study, depending on whether the undergraduate degree was a general or honours degree. Some institutions require the student to produce a thesis or to work through a professional practicum for the master's degree. Doctoral degrees usually require three years of study after a master's degree. Most students need much more time to complete a doctorate, the average being four or five years. Doctoral degrees usually involve researching, writing, presenting and defending a thesis, in addition to attending seminars and a specified number of courses.

For elementary and secondary students in Canada, the school year (which comprises 180-200 days of instruction, depending upon the jurisdiction) generally begins in early September and ends in late June.

The financing of education

Though similarities are evident across the country, educational finance systems differ from one province or territory to the next. Some jurisdictions support private schools, others do not; some allow substantial local taxation and local board discretionary



spending, others limit or eliminate completely; some negotiate teacher salaries and benefits centrally, others use local mechanisms.

Elementary and secondary education is financed primarily through partnership between provincial or territorial and local governments, with some federal support. Post-secondary education is financed to a large extent through federal support and federal-provincial partnership. However, public funding for post-secondary education fell during the 1990s, and educational institutions increased tuition fees.

Two general trends have emerged over the 1990s: (i) tightening of control of overall expenses at the provincial level and limits on local discretionary taxation/spending; and (ii) significant reductions in education budgets. While current per capita spending (Canadian \$1,996 in 1998-99) is about the same as ten years ago, considerable changes and significant trends occurred during this period. Per capita spending between 1988-89 and 1994-95 rose by 7% to C\$2,147. Annual decreases since 1994-95 have reduced per capita spending by 7%, back to C\$1,996 in 1998-99. Spending in that year was lower, according to estimates, by C\$1.9 billion (3%), down from the peak of C\$62.3 billion it reached in 1994-95.

The federal government of Canada plays an indirect role in elementary and secondary education. A portion of the federal transfer payments made each year to the provinces and territories is nominally for education. It provides financial support for post-secondary education and the teaching of the two official languages. In addition, the federal government is responsible for the education of Registered Indian peoples on reserves, of personnel in the armed forces and the coast guard, and of inmates in federal correctional facilities. In addition to providing revenue for universities and colleges through transfer payments, the federal government offers direct student support. Every year, the Canada Student Loans Programme and related provincial and territorial programs provide loans and interest forgiveness to over 350,000 post-secondary students. The Canada Millennium Scholarship Foundation awards C\$285 million in bursaries and scholarships each year to about 100,000 students throughout Canada. For parents, the Canada Education Savings Grant programme supplements their savings for post-secondary education. These programmes are designed to make post-secondary education more widely accessible and to reduce student debt.

With regard to the distribution of overall public expenditure on education according to sources of financing, data for 1999/2000 show that provincial and territorial governments carry a large part of the education finance burden (about 58%); local governments are the second most important source (about 16%, mainly derived from property taxes for elementary/secondary education in several provinces); direct federal and private contributions are smaller, but not insignificant (about 8% each).

In 2002-03, almost C\$40 billion was spent on public elementary and secondary education in Canada, breaking down to an expenditure of about C\$7,950 per student. Expenditures on public elementary and secondary schools were 13.4% of the total combined expenditures by provincial, territorial, and local governments in 2002-03, representing 3.3% of GDP.



Revenue for Canada's universities and colleges in 2004–05 was C\$27.7 billion. Federal, provincial, and municipal government funding, including funding for research, accounted for 55.6% of the revenue, although this ranged from 43.6% in Nova Scotia to 70.5% in Quebec. Student fees accounted for over 20% of the total, with bequests, donations, nongovernmental grants, and sales of products and services bringing in another 24.2%. University and college expenditures in 2004–05 were more than C\$27.9 billion. Tuition costs at universities averaged C\$4,172 in 2004–05, with international student fees for an undergraduate program averaging about C\$12,000 annually. At colleges (outside Quebec), the average tuition was C\$2,133 (Quebec residents do not pay college tuition). Education is also funded through the money that governments transfer to individual students through loans, grants, and education tax credits. In 2003, federal and provincial government spending on all forms of student assistance was about \$4.4 billion. (CMEC, 2005).

The educational process

The curriculum development process in Canada has recently undergone some changes. From the 1960s to the 1980s, governments had decentralized decision making in education by delegating many responsibilities to school boards, commissions or districts. However, as provinces have re-centralized in recent decades, many functions previously delegated to school boards have been reassigned to the department. These functions include local fundraising, curriculum development, performance appraisal, reporting of outcomes and supervision of the quality of teaching.

As it stands, the responsibility for education resides with the provinces' and territories' Ministry or Department of Education. Curriculum development, standards, and assessment mechanisms are either developed centrally by the ministry or jointly with local school boards, generally using committees composed of various stakeholders in the educational enterprise.

Other major changes in the distribution of responsibilities have taken place. For example, the territories have inherited from the federal government the responsibility for delivering education and training services, and a new territory has been carved out from the original North West Territories. Furthermore, the provinces and territories have created language-based school boards in recognition of the right of official language minorities to manage their own schools.

With the exception of Saskatchewan, all provinces and territories in Canada have established a core curriculum of about 80% provincially defined courses and 20% locally developed curriculum. Yukon uses the British Columbia curriculum, and the Northwest Territories adapts the Alberta curriculum, through co-operative arrangements developed by all four jurisdictions. The degree to which schools and school districts are inspected by ministries or departments for their fidelity to curriculum guidelines varies from province to province. Beginning in the 1970s, some provinces relaxed their prescriptive lists of texts for use in the classroom. Local educational authorities are sufficiently empowered to modify basic curricula to reflect and acknowledge the presence of diverse local cultures. In on-reserve schools, for example, local education authorities and educators can modify the core curriculum to meet the needs of the community and the students. In fact, certain programmes, such



as social studies and arts (music, dance, and plastic arts), have been adapted to include Native cultural elements.

There is neither a national curriculum nor are there national standards for education, although a certain number of pan-Canadian co-operative programmes for curriculum development have recently emerged. These include the Western Canadian Protocol, which plans the common development of curriculum in mathematics and languages by the four western provinces and two territories.

The Atlantic provinces are also collaborating on the development and implementation of a common core curriculum from kindergarten to Grade XII in languages, mathematics, science and social studies (this is a project to standardize curriculum in the Atlantic provinces). At a Canada-wide level, Ontario, the Atlantic provinces, and the western provinces and territories (nine provinces and two territories in all) are collaborating on the development of a common framework of goals for science education from kindergarten to Grade XII.

In addition, all the provinces are collaborating on setting standards for science in relation to the School Achievement Indicators Program (SAIP). Curriculum delivery varies from province to province, with different degrees of control exercised over what students learn, how much time they spend learning, and the extent to which differences in student abilities are addressed.

Pre-primary education

Kindergarten and private nursery schools are designed to encourage children's physical, intellectual, social, and emotional development. Early childhood development programmes have received attention from every administration in the late 1990s and the beginning of the new century. Most have adopted or enriched and strengthened early childhood health and learning programmes. These programmes are recognized under such names as: Healthy Children in the Northwest Territories; School Meals, Inner City Schools and Kids at Risk in British Columbia; Early Years Challenge Fund in Ontario; and Integrated School-Linked Services in Saskatchewan. Whether these programmes are carried out in formal school settings of kindergarten and junior kindergarten, in nursery schools or in child-care settings, public access to free, universal pre-school education is imperative. The provision of such services requires financial commitments and co-operation among agencies.

New Brunswick, in recognition of the importance of kindergarten, has moved from an optional to a mandatory kindergarten programme. Quebec now provides full-day kindergarten programmes for 5-year-olds in all school boards. Some ministries of education are already engaged in partnerships to provide co-ordinated services in the pre-school years.

Some examples of the diverse approaches to collaboration are provided by initiatives in British Columbia, Saskatchewan, Manitoba, Ontario, Quebec, and New Brunswick. British Columbia has established the Ministry for Children and Families, which merges various aspects of five ministries. The needs of the child are the focus of the new ministry. The ministry will serve children and youth from birth to age 19.



Saskatchewan Education has developed the Pre-kindergarten Programme for Community Schools, intended to provide holistic and early intervention for 3- and 4-year-olds at risk of school failure. Saskatchewan Education works in partnership with boards of education and community groups in carrying out these pre-school programmes.

The mandate of the Manitoba Children and Youth Secretariat is to initiate a coordinated and integrated system of services for children, youth, and their families. The area of early childhood has been targeted for concerted effort in order to increase the prospect for leading a productive life.

Quebec, as part of a four-pronged programme to support children and families, has announced that it will move to integrate universal day care into the public school system. This will be done by creating early-childhood centres, which will provide stimulating environments for preschoolers and encourage the development of local services that respond to the needs of families.

A long-term initiative in Ontario, called *Better Beginnings, Better Futures*, has been funded by the ministries of Community and Social Services, Education and Training, and Health as well as the federal departments of Indian and Northern Affairs and Heritage Canada. The focus is on children up to age 8, their families, and their neighbourhoods. The programme is holistic, community based, and tailored to community needs.

New Brunswick has specifically addressed the needs of children and their families from the prenatal through the kindergarten period in its Early Childhood Initiatives. The overarching goal of Early Childhood Initiatives is to improve the development of children who are at risk of delay in school readiness. The initiative combines the services of Public Health, Family and Community Social Services, Mental Health Commission, Department of Income Assistance, and Education.

Primary and secondary education

There are approximately 15,500 schools in Canada—10,100 elementary, 3,400 secondary, and 2,000 mixed elementary and secondary—with an overall average of 351 students per school. In 2002–03, provinces and territories reported that there were five million students attending public elementary and secondary schools. Because Canada is a bilingual (French-English) country, each province and territory (except Quebec) has established French-language school boards to manage the network of French-language schools within their jurisdiction that serve the French-speaking minority populations. In Quebec, the same structure applies to education in English-first-language schools.

In 2000–01, elementary and secondary school systems employed close to 310,000 educators, most of whom had four or five years of post-secondary study. This total for educators is primarily teachers, but includes principals, vice-principals, consultants, and counsellors. Most secondary school teachers have a subject speciality in the courses they teach. Some school boards and districts are encountering shortages of secondary teachers specialized in such areas as technology and mathematics.



As mentioned, in most jurisdictions elementary schools cover six to eight years of schooling, which can be followed by a middle school or junior high before moving on to secondary school. Elementary schools generally require a minimum of five hours of instruction per school day, or approximately twenty-five hours a week on average. Elementary schools programmes range from rigidly timed, content-based programmes to flexible, integrated programmes; some combine both approaches. The elementary school curriculum emphasizes the basic subjects of language, mathematics, social studies, science, and introductory arts, while some jurisdictions include second-language learning. In many provinces and territories, increased attention is being paid to literacy, especially in the case of boys whose test results have shown that their performance is falling behind that of girls in language.

Continuous progress is the norm at elementary levels, meaning that children are rarely retained for another year at the same grade level, despite achievement levels. Rather, to help improve student performance, various types of remediation are used, within the regular classroom on an individualized basis, or in a resource centre within the school for a limited period of time. Almost 98% of elementary students go on to the secondary level.

Secondary school covers the final four to six years of compulsory education. In most cases, vocational and academic programmes are offered within the same secondary schools, with some shorter non-diploma programmes for students interested in specific trades. Enrolment at age 16, the final year of compulsory schooling in many jurisdictions, was above 90% in the 1999–2000 school year. The secondary school completion rate in 2003 was 75.6%, with 81% of girls and 70% of boys graduating. (Because of a change in the structure of senior secondary school in Ontario, a double group of students graduated in 2003, and these graduates are not reflected in the above numbers. Graduates from Ontario generally represent about 37% of all graduates in Canada.) The overall graduation rate has remained relatively stable during the past five years.

On average, secondary schools require a minimum of five and a half hours of instruction per school day. The first secondary years are devoted mainly to compulsory subjects, with some optional subjects. Core courses at the secondary level are often offered with different degrees of difficulty, giving students the option of which course level to take. Compulsory subjects, which may vary widely from jurisdiction to jurisdiction, include: first-language studies (English, French or, in some cases, Native languages); mathematics; science; arts; social studies; physical education; and religious or moral instruction (only when allowed provincially). All provinces offer second language instruction (usually French for English speakers and English for French speakers), and most offer home economics, health, personal and social skills training, industrial training, computer studies, and an introduction to technology. In the latter secondary years, the number of compulsory subjects is reduced, permitting students to spend more time on specialized programmes.

At the secondary level, credit systems and promotion by subject, rather than grade, is the usual custom. Secondary school diplomas are granted to students who pass the compulsory and optional courses of their programmes. In some provinces, such as Quebec, Alberta, and British Columbia, the ministry or department of education evaluates what students have learned by conducting uniform province-wide



examinations, such that a student's award of standing is shared between the ministry and the local school board. Other provinces (e.g. Newfoundland and Labrador) conduct a standardized test (such as the Canadian Test of Basic Skills) to monitor student performance. In Ontario, since September 1999, students must complete 30 credits during the four-year secondary school programme—18 compulsory and 12 optional. They must also pass the Ontario Secondary School Literacy Test in order to graduate.

Figures on the pupil/teacher ratios (PTR) and class size are hard to come by, since, in the definition of the PTR, all school personnel who come in contact with students, apart from janitorial and cafeteria staff, are included in the teachers number. In 1999-2000, the PTR was estimated at 15:1 in pre-primary and elementary schools, and 18:1 in secondary schools. According to the UNESCO Institute for Statistics, in 2002 the PTR was estimated at 17:1 at the primary level and 18:1 at the secondary level.

According to the Statistics Canada's School-leavers Survey of 1994, of students who leave school before graduating, 22% said they preferred work to school, 20% cited boredom, 8% spoke of problems with school work, 8% cited financial reasons, and 9% (of females only) said they quit because of pregnancy or marriage-related reasons. The same survey revealed that unemployment rates were twice as high for drop-outs as for those who had completed secondary school. Nearly half of those who had quit school regretted the decision and a similar proportion said they had returned to school to continue their education. The latter point has proved critical in the re-examination of drop-out rates. In a 1993 Statistics Canada report, *Leaving School*, it is suggested that the national drop-out rate is 18%, if researchers account for students dropping out and later returning to school and students transferring to other provinces or to vocational and work experience programmes.

Specific information concerning primary and secondary education in individual provinces and territories is reported below.

Alberta

The school year usually extends from 1 September to 30 June of the following year, with minor variations from system to system. Some schools provide year-round schooling and other alternative timetables and others may start their school year in August rather than September. The number of instructional days may vary from 190 to 200 days. Normally, a minimum of 190 days of instruction is required. Other days are used for planning, in-service education, and other related activities. Junior high school students must be given access to 950 hours of instruction per year per grade. Senior high school students must be given access to 1,000 hours of instruction per year.

In junior high schools, the majority of courses are offered for the full school year. However, complementary or optional courses may be rotated on a scheduled basis throughout the year. In senior high schools, courses may be offered for the full school year, or they may be on a semester basis (two per year). Senior high schools are required to provide access to twenty-five hours of instruction per credit. For a five-credit course, a student must have access to 125 hours of instruction. For most



three-credit courses, a student must have access to 62.5 hours of instruction. Students enrolled in work experience and special projects offered for three-credit courses must have access to 75 hours of instruction.

Because of the bilingual nature of Canada, Alberta Education encourages opportunities for all Alberta students to learn French by supporting programmes and services for French immersion programmes and French second language (FSL) courses. School boards may begin the programme at different grades as the FSL programme is not grade specific. Many schools begin FSL in Grade IV, but others may not start until Grade VII or later. Students entering junior high school may begin their French language experience, or they may continue developing their language proficiency, depending upon the level attained in elementary school.

In junior high school, school boards determine the method for reporting progress on students' achievement. However, the province requires schools to report student progress relative to the grade levels of the provincial programmes of study in language arts, mathematics, science and social studies. The province also monitors student achievement in these four subjects through achievement tests in Grade IX.

In senior high school, student achievement in each course is normally reported in percentages. The percentages correspond to letter grades as follows: A, 80-100%; B, 65-79%; C, 50-64%; F, 0-49%. To obtain credit in high school courses, students must earn a final mark of 50% or higher. A student who achieves this mark in a given course is eligible to take the next higher course in that sequence. Except for those Grade XII courses that require provincial diploma examinations, the school determines final marks. For diploma examination courses, the student's final mark is determined by averaging the mark assigned by the school with the mark attained on the diploma examination. At the senior high level, all marks are reported to Alberta Education and become part of the student's record. Alberta Education also issues official transcripts of student achievement.

The principal may waive prerequisites if it is in the best interest of the student, and the principal is assured the student has the required knowledge, skills and attitudes of the prerequisite course or courses. Subject to the approval of the school principal, and in accordance with policies established by each school authority, students who successfully complete the course may be granted credit in the prerequisite course in that sequence.

Recently, Alberta's curriculum and educational system have been renewed, with an emphasis on performance reporting, fiscal accountability, open government planning, and parental responsibility and choice within a flexible system that meets high standards.

Government planning in Alberta is an open and coordinated process: the reports and plans of school boards and individual schools must be consistent with the broad Ministry plan, and the province uses consultations as an information gathering and planning tool. Innovative funding approaches also support collaborative planning. The Alberta Initiative for School Improvement supports improved student learning by encouraging teachers, parents, and the community to collaborate on innovative and

creative teaching methods. Pilot projects have included reducing class sizes and introducing early literacy programmes.

The Ministry also conducted the Native Education Policy Review to identify ways of better meeting the needs of Aboriginal students and propose ways to foster a greater appreciation of Aboriginal culture. In collaboration with the Western provinces, Alberta has also completed a common Aboriginal Language and Culture curriculum. Additional funding was allocated for children with special needs and children who need English as a second language instruction.

Alberta continuously reviews elementary and secondary curriculum with a view to ensuring appropriateness and relevance. Under the Western Canadian Protocol, it is an active participant with other Western provinces in curriculum development and sharing ideas and expertise to optimise results.

Alberta. Elementary education: recommended time allocation to each subject (English instruction)

Subject	Recommended time allocation (in %) to each subject					
	I	II	III	IV	V	VI
English language arts	30	30	25	25	25	25
Mathematics	15	15	15	15	15	15
Science	10	10	15	15	15	15
Social studies	10	10	10	10	10	10
Art and music	10	10	10	10	10	10
Health and physical education	10	10	10	10	10	10
Time for optional subjects (e.g. second languages, drama, religious instruction), ICT outcomes not integrated with a core subject, or additional allocations to the core subjects listed above	15	15	15	15	15	15
Total	100%	100%	100%	100%	100%	100%

Source: Alberta Learning, 2001. 'Schools are required to ensure that Grade 2 to Grade 9 students have access to 950 hours of instruction per year in each grade. For Grade 1, alternative minimum times enabling a smooth transition from Early Childhood Services are permissible' (p. 27). 'Instructional time includes time scheduled for purpose of instruction, examination/testing and other student activities where direct student-teacher interaction and supervision are maintained' (p. 26). The school year consists of 185–190 instructional days (Canadian Education Association, 2001).

British Columbia

The education programme is divided into three levels: primary (kindergarten to Grade III), intermediate (Grades IV to IX or X), and graduation years (Grades XI and XII for students on the 1995 graduation programme and Grades X-XII for students on the 2004 graduation programme). Each level has particular emphases that reflect the range of knowledge, skills and attitudes that students develop during these years. All levels of the programme are developed around a common core of learning intended to ensure that students learn to read, write, and do basic mathematics, solve problems,



and use computer-based technology. These basic skills are emphasized through studies in English, mathematics, science, social studies, fine arts, and applied skills from kindergarten to Grade XII. This common core of learning, called *Foundation Studies* in the 1995 graduation programme and Required Courses in the 2004 graduation programme, is comprised of provincially-prescribed curriculum to ensure that all students, and not only those planning to go to university, will gain the knowledge, problem-solving skills, and communication skills they need to continue learning through their lives.

In Grades IV-X, minimum time allotments, expressed as percentages, are recommended for each required area of study. They suggest the priority that the Ministry expects schools give to each area of study. It is up to each school to design a timetable appropriate for all students. Variation in the recommended times are encouraged to address the learning needs of individual students and the particular needs of communities.

Since 1995/96, during their graduation years (Grades XI and XII), students must complete at least 52 credits of course work to satisfy the minimum requirements for graduation (at least 80 credits in Grades X-XII in the case of the 2004 graduation programme). In the new credit system for the graduation years, the length and scope of courses are reflected in the credit value awarded to them. For example, courses may have a value of one, two, three, or four credits. In a ten-month secondary organization, a student will normally take seven or eight courses each year. The instructional time for each course therefore is one-seventh or one-eighth of the total instructional time, or about 100-120 hours.

For Grades IV-XII, students receive letter grades describing what they are able to do in relation to expected learning outcomes. Letter grades, with written comments when required, are provided in student reports for Grades VIII-XII. For students in Grades XI or XII, letter grades are accompanied by percentage marks and written comments when required. The successful completion of a course numbered eleven or twelve requires a minimum grade of C, or 50%. Province-wide examinations are required in seventeen of the Grade XII academic subjects. Scores in these exams form 40% of the final grade awarded (1995 graduation programme).

The *Dogwood Diploma* is the British Columbia Certificate of Graduation for the province's secondary school programme. A student who meets the secondary school graduation requirements is entitled to receive a Dogwood Diploma. As a feature of the new credit-based Graduation Programme, the School Completion Certificate is awarded to students who complete the goals and objectives stated in their Student Learning Plan, as agreed upon by the student, parent and school representative. Most graduating students will be awarded a School Completion Certificate, but students do not need to graduate in order to qualify. In order to earn a School Completion Certificate, students must simply meet the goals in their Student Learning Plan. A French version of the School Completion Certificate is available for students who meet *Programme cadre de français* or French Immersion requirements.

British Columbia's priorities are improvement of education, job creation and protection, and support for children and families. The reforms undertaken by the province are designed to guarantee young people free and fair access to education



systems. A coordinated inter-ministerial plan has been adopted to address issues such as child poverty, neglect, and abuse. Programmes such as School Meals, Inner City Schools, and Kids at Risk meet the dietary and social needs of young people in primary and secondary schools.

To strengthen public accountability, the government has launched a new accreditation programme for primary and secondary schools, and developed a system of performance indicators for post-secondary education. In 1994, the provincial government announced a comprehensive strategy to improve the quality and relevance of education. This strategy called for the review of all provincial curricula and consolidation of the basic academic skills. It also recommended teaching students computer skills and other important skills.

Aboriginal programme initiatives in British Columbia continue to enhance learner transition and recruitment into post-secondary education and training, and the development of relevant Aboriginal programming for all learners.

British Columbia. Grades K–10 recommended time allotments

Foundation studies	Recommended time allocation (in %)			
	K–III	IV–VI	VII–VIII	IX–X
<u>Language and citizenship</u>	x*	35	35	30
Language arts		x	x	x
Social studies		x	x	x
Second language (Grades V–VIII)		x	x	
Science, Mathematics & Technology	x*	30	30	30
Mathematics		x	x	x
Science		x	x	x
Information & Computer Technology (Grades IV–X)		(a)	(a)	(a)
<u>Physical education</u>	x*	10	10	10
Fine arts	x*	10	5	5
Dance		x	/	/
Drama/Theatre		x	/	/
Music		x	/	/
Visual arts		x	/	/
Applied skills	x*	x	5	5
Technology education		(a)	/	/
Home economics		(a)	/	/
Business education		(a)	/	/
<u>Personal planning</u>	x*	5	5	5
Student learning plan (IX–XII)				x
Career development		x	x	x
Personal development		x	x	x
<u>Selected studies</u>		(b)	(b)	(c)
Total		100%	100%	100%

Source: British Columbia, 1998.

Notes:

* = In the primary years, teachers determine time allotments for each required subject area.

x = Required part of the common curriculum.

/ = Choice of one or more subjects.

(a) = Skills and concepts included in all subject areas.

(b) = In Grades IV–VIII, 10% additional time may be allocated to any of the above areas of study; either provincial or locally developed curriculum may be used for additional time.

(c) = In Grades IX and X, 15% may be applied to any of the above areas of study, career exploration or work experience, or courses from the graduation years. Provincial or locally developed curriculum may be used for additional time.

School boards are required to offer to each student enrolled in school an amount of instructional time of not less than 450 hours per year in kindergarten, 23 hours 45 minutes per week in Grades I–VII, and 25 hours 45 minutes per week in Grades VIII–XII. The school year should consist of a minimum of 187 days of instruction (2002/03).



Manitoba

Schools are encouraged to group grades according to Early Years (kindergarten to Grade IV), Middle Years (Grades V-VIII), and Senior Years (Senior I-IV). The school year calendar is established on the basis of Manitoba Regulations including the establishment of Christmas, Spring and Summer vacations. School boards may set the opening and closing dates for the school year. The school year consists of 200 school days. Ten days are allotted for teacher in-service, parent-student conferences, administration and pupil evaluation. Of these ten days, five are to be used for teacher in-service. The instructional time per week from kindergarten to Grade VIII is approximately 1,650 minutes.

In Senior Years, a student may earn one credit by undertaking and successfully completing a course of study designed for a minimum of 110 hours of instruction. Half credits may be earned by undertaking and successfully completing a course of study designed for a minimum of 55 hours of instruction. A minimum of 28 credits is required for graduation.

There are four school programmes in Manitoba: the English programme; the *Français* programme; the French immersion programme; and the Senior Years technology education programme (English, *Français*, and French immersion). A school programme is a set of courses leading to one of four school programme diplomas. Attaining one of the four school programme diplomas requires satisfactory completion of the compulsory core subject areas, plus selections from the complementary and supplementary subject areas.

All school report cards are required to state student marks as percentages for all subject areas at each grade from Grade VI to Senior I. Manitoba has introduced provincial standards tests at Grade III, VI, Senior I, and Senior IV levels. Final marks for the compulsory core subject areas at Grade VI, Senior I, and Senior IV, will be calculated by combining marks from standards tests with marks obtained from other classroom-and/or school-based evaluation processes. Report cards will state the mark obtained in the provincial standards tests and the mark obtained through classroom-and/or school-based evaluation, along with the combined final grade. Provincial examinations are administered at Senior IV in mathematics and language arts, and count for a percentage of the student's final mark. These examinations will continue until the provincial standards test mentioned above are in place.

In recent years, the education and training system in Manitoba has been completely overhauled. Key components of education and training renewal in Manitoba include: renewing the curriculum from kindergarten to secondary IV (Grade XII) to provide quality education adapted to current needs and focused on the future; and using learning technology to facilitate cooperation and provide students with more options. Manitoba is also striving with other provinces to develop its common learning outcomes within a single education framework, and has introduced a standard testing method in language arts, mathematics, science and social studies in Grades III, VI, IX and XII; the province has tabled legislation to encourage and assist parents and the community in participating more extensively in the life of public schools. and developing and Aboriginal education strategy to address the needs of the Aboriginal people.

Manitoba. Elementary education: time allotment guidelines (English programme)

Subject areas	Weekly time allocated to each subject (in %)	
	Grades I-VI	Grades VII and VIII
<u>Compulsory areas:</u>		
Language arts (English)	35	27
Mathematics	15	17
Science	10	13
Social studies	10	13
Physical education/health education	11	9
Arts	10	8
Optional (basic French *, languages, Native studies, etc.)	9	13
Total	100%	100%

Source: Web site of the Manitoba Department of Education, March 2003. The school year consists of 200 days (190 teaching days of 5.5 hours each and ten administration/Professional Development days).

(*) A recommendation for schools offering basic French or other second languages is to re-allocate a small portion of English language arts time for this purpose. This recognizes that some language concepts are transferable and should assist schools to accommodate the basic French grant requirement.

New Brunswick

School programmes and activities are organized on a one-year basis with the school year extending from after Labour Day through mid-June. The school year consists of 195 days for teachers and 187 days for students, divided into two semesters. Hours of instruction are a minimum of five and a half hours per day.

In 1995, New Brunswick embarked on a new organization for high school education that focuses on a four-year programme called the High School Programme. The high school experience will normally be of four years duration including Grades IX-XII. Grades IX-X offer an opportunity for consolidation of, and growth in, necessary skills and knowledge across a broad common curriculum. The Grades IX-X programme is outcome-directed and students may proceed to Grades XI-XII courses when subject outcomes have been achieved. The Grades XI-XII programme leads to a New Brunswick High School Diploma. There are compulsory courses and an opportunity for students to choose electives that reflect personal interests, post-secondary intentions and career aspirations.

The common core curriculum for the foundation programme has four components: languages and humanities (English, French, and social studies); mathematics, science, technology; fine arts (visual arts, music); and life role development (physical education, career and life management). Testing, assessment and grading are the responsibility of the school in all areas of the High School Programme except for the provincial examinations in Mathematics and English in Grade XI, which count for 30% of the student's mark. Students who may fail the Middle Level Language Arts Assessment in Grade VIII are offered further opportunities in Grades X, XI, and XII. Passing this assessment is required for high school graduation. In addition, students must pass a Computer Literacy Skills Checklist prior to graduation.

The restructuring of education in New Brunswick has targeted the following objectives: increasing parents' participation in the education of their children; rationalizing administrative methods in education; and ensuring that shrinking resources are directed primarily toward the classroom. New Brunswick continues to create a stricter, better targeted, more accountable system that strives to attain higher standards and expectations. Several initiatives are underway to achieve these objectives.

The organization of learning opportunities has been changed. New Brunswick is actively participating in efforts to specify the expected learning outcomes in a number of curriculum fields. The ultimate objective is to specify for all curricula what students are expected to know and be able to do. The Department of Education has developed standards and assessed the performance of students in grades three and eight. In addition, high school students must take provincial examinations.

The directive on protecting mistreated students was recently revised and the province has launched consultations on its preliminary directive on discipline. Also, the Department wants to help the children from socio-economically disadvantaged backgrounds, who tend to lag behind their fellow students, achieve their full potential by paying more attention to remedial programmes and other intervention measures.

New Brunswick. Elementary and middle school: recommended time allocation (Grades I–VI, French programme)

Subject	Recommended time allocation (in %)					
	I	II	III	IV	V	VI
French	40	40	40	35	35	35
Social studies	4	4	4	6	6	6
Arts education	6	6	6	6	6	6
Personal and social development and Physical education	6	6	6	6	6	6
Mathematics	30	30	30	25	25	25
Sciences and technology	4	4	4	6	6	6
English (second language)	–	–	–	8	8	8
Recreational activities	10	10	10	8	8	8
Total	100	100	100	100	100	100

Source: Information provided by the Department of Education, August 2003.

**New Brunswick. Elementary and middle school: recommended time allocation
(Grades VII and VIII, French programme)**

Subject	Recommended time allocation (in %)	
	VII	VIII
French	25	25
Social studies	9	9
Arts education	4	4
Personal and social development and Physical education	7	7
Mathematics	25	25
Sciences and technology	12	12
English (second language)	10	10
Recreational activities	8	8
Total	100	100

Source: Information provided by the Department of Education, August 2003.

Newfoundland and Labrador

The school year normally extends from 1 September to 20 June of the following year. There are a total of 192 days in the school year, with a minimum of 187 days to be set aside for scheduled instruction. Five days are usually provided for workshops, teacher planning, etc., and three days for statutory holidays. A minimum of five hours per day, or 1,500 minutes per week, is normally required for instructional time. In senior high school, courses requiring 110-120 hours/year of instruction are given two credits, and courses requiring 55-60 hours/year of instruction, one credit. Mathematics is allocated three credits. A student will normally register for 14 credits each academic year.

The curriculum is organized to provide for three years of study at the intermediate school level and three at the senior high school level. In the intermediate school, compulsory courses include: language arts, mathematics, science, social studies, physical education, and religious education. Most schools offer some or all of the following options: music, art, home economics and industrial arts. In the senior high school, students can select, with guidance, courses from a variety of subjects, keeping in mind the requirements for graduation and their future plans.

Achievement in each course is normally reported in percentage grades. A mark of 50% or over is required for pass standing. Student achievement is assessed by the school in most subjects.

The Official Transcript of Senior High School Results contains a complete record of final marks and credits awarded, and a detailed evaluation of the total record against the graduation requirements. For graduates of the French first language programme, both the transcript and the diploma are issued in French, and for graduates of a French immersion programme, the transcript indicates the type of programme. Graduation status is summarized on the transcript using one only of the following designations: graduated; graduated with distinction; graduated with honours. Since June 2001, the student transcripts indicate language orientation

(English first language, French first language, and French immersion), and also show the programme.

While constant efforts are made to ensure that courses delivered meet the province's social and economic realities and needs, the Department of Education has also recently placed great emphasis on introducing new programmes and courses with an emphasis on science, technology, technical and economic education, and cooperative education. These initiatives include improving student learning outcomes, introducing special programmes for academically gifted students, and improving professional development courses on curriculum and teaching.

The implementation of major curriculum changes has been realized for the Senior High School Programme in the 2003-04 year. These changes were a result of partnering with the other Atlantic Provinces (Atlantic Provinces Education Foundation—APEF) in developing a common curriculum.

Newfoundland and Labrador. Primary education: recommended time allocation to each subject (in percentage)

Subject	Recommended time allocation (in %) to each subject					
	Primary programme			Elementary programme		
	I	II	III	IV	V	VI
English language arts (*)	25	25	25	–	–	–
Mathematics, science, technology education	25	25	25	–	–	–
Art, music, physical education	20	20	20	–	–	–
Social studies, health, religious education	20	20	20	–	–	–
Optional	10	10	10	–	–	–
Language	–	–	–	24	24	24
French	–	–	–	10	10	10
Mathematics	–	–	–	16	16	16
Social studies	–	–	–	10	10	10
Science	–	–	–	8	8	8
Art	–	–	–	6	6	6
Health	–	–	–	6	6	6
Music	–	–	–	6	6	6
Physical education	–	–	–	6	6	6
Religious education	–	–	–	8	8	8
Total	100%	100%	100%	100%	100%	100%

Source: Newfoundland and Labrador, 2000. The school year consists of 185 instructional days (Canadian Education Association, 2001). According to the School Act of 1997, schools should provide four hours of instruction per day in Grades I–III and five hours in Grades IV–XII. (*) Schools introducing core French in Grades I–III should increase time allocation to 35%.

**Newfoundland and Labrador. Intermediate programme (lower secondary):
recommended time allocation to each subject (in percentage)**

Subject	Recommended time allocation (in %) to each subject		
	VII	VIII	IX
English language arts	20	20	20
Mathematics	18	18	18
Social studies	10	10	10
Science	10	10	10
French language	10	10	10
Religious education	8	8	8
Industrial arts/Home economics	8	8	8
Physical education	6	6	6
Music and art	5	5	5
Health	5	5	5
Total	100%	100%	100%

Source: Newfoundland and Labrador, 2000.

Northwest Territories

Each school/school board is responsible for setting the school year. Some schools start as early as August and extend to May while other follow a typical school year September to June with minor variations among jurisdictions. Normally the school year comprises 190 days of instruction. Other days are used for planning, in-service education, and other such activities. However the length of the school year is determined by the number of instructional hours per year, that is set at a minimum of 1,045 hours for Grades VII-XII. A minimum of 1,045 hours of instruction per year is required at the junior and senior secondary level.

Junior and senior secondary schools may offer courses for an entire school year, or they may divide the year into two equal semesters. Special consideration can also be given to block scheduling to enable teachers to take advantage of seasonal trends and cultural events. Regardless of whether a school is organized by semesters or on a ten-month basis, the school must meet the instructional time requirements for each course as determined by its credit value. The length of the school day for Grades VII-IX is set at a minimum of five and a quarter hours and a maximum of five and a three-quarter hours.

In high school, most courses have a value of either three or five credits, but career and technology studies courses are offered for one credit. The apprenticeship programme (SNAP) can have upwards of 40 credits based on the number of hours earned during the programme. At least twenty-five hours per credit must be scheduled for purposes of instruction, examinations, and other activities that directly relate to the course for which credit is to be granted. During this time, direct student/teacher interaction and supervision are to be maintained.

The curriculum is organized to provide for three years of study at the junior and senior secondary levels, respectively. It is recognized that it may take more or less than three years for a students to complete senior secondary high school. Student



achievement in each course is normally reported in percentages or letter grades as follows: A, 80 to 100%; B, 70 to 79%; C, 60 to 69%; D, 50 to 59%; E, 0 to 49%.

At the secondary level, a student who achieves a mark of 50% or higher in a given course is eligible to take the next course in that sequence. The pass mark for all courses is 50%. An Award of Excellence will be noted on the Secondary School Diploma of a student who earns a final average of 80% or higher, with not less than 65% in any one of the four required departmental examination courses.

Secondary school students who do not achieve the required 50% may elect to repeat the course or continue at the next higher level in an alternative lower sequence. Such choices are subject to approval by the school principal. In such instances, a student who successfully completes the next course is granted the prerequisite credit in that programme route.

The principal may waive prerequisites if it is in the best interest of the student and the principal is assured that the student has the required knowledge, skills and attitudes of the prerequisite course or courses.

Achievement scores are determined by the school, except for those Grade XII courses that require Alberta departmental examinations. For Alberta departmental examination courses, the student's final mark is determined by blending the mark assigned by the school with the mark attained on the departmental examination. At the secondary level, marks are reported to the Department of Education for recording and transcript purposes.

The Department has been working in close cooperation with school boards to implement programmes from kindergarten to Grade XII. Implementation of distance education programmes will give students a choice from a full range of quality courses. The new Education Act that took effect in July 1996 gives greater responsibility to communities. In recent years, priority has been placed on early childhood education, with increased funding. Implementation of Aboriginal programmes in all Northwest Territories schools is continuing through *Innuqatigiit* (kindergarten to Grade XII) and *Dene Kede* (kindergarten to Grade IX).

Curriculum reform is based on the following approaches: all communities in the Territories now have access to a full range of secondary curriculum; an electronic network links all Northwest Territories communities and is being used to launch a series of applications designed to facilitate curriculum delivery. The Healthy Children initiative, launched in 1997, targets children from birth to age 6, as well as their families. One priority of the school system is to produce and introduce curriculum that reflect Dene and Inuit perspectives.

Furthermore, a new basic education programme is now being developed to provide all Territories communities with teachers representative of the population by the year 2004; a four-year training programme undertaken in partnership with the federal government will prepare Inuit people for employment in the federal government, so Nunavut can have a representative public service. Various new pre-employment, trades access and technology certificate programs have been set up to

train workers for employment in the rapidly growing sector of mining and related services.

Northwest Territories. Elementary education (Grades I–VI): recommended time allocation

Subject	Recommended time allocation (in %)					
	I	II	III	IV	V	VI
Language of instruction	21	21	21	21	21	21
Another language	9	9	9	9	9	9
Mathematics	18	18	18	18	18	18
Science	9	9	9	9	9	9
Social studies	9	9	9	9	9	9
Physical education	9	9	9	9	9	9
Career and technology studies	6	6	6	6	6	6
Health	6	6	6	6	6	6
Fine arts (art, music, drama)	6	6	6	6	6	6
Unscheduled instruction	7	7	7	7	7	7
Total	100	100	100	100	100	100

Note: The school year consists of 190 working days. At the kindergarten level, children attend no more than 570 hours per year, or approximately 3.5 hours per day. In Grades I–VI, pupils should attend not less than 997 hours per year and no more than 30 hours per week. (Information provided by the Department of Education, August 2003).

Northwest Territories. Junior secondary education (Grades VII–IX): recommended time allocation

Subject	Recommended time allocation (in hours)		
	VII	VIII	IX
English	210	210	210
Second language	90	90	90
Mathematics	180	180	180
Science	90	90	90
Social studies	90	90	90
Physical education	90	90	90
Career and technology studies	60	60	60
Health	60	60	60
Fine arts (art, music, drama)	60	60	60
Unscheduled instruction	115	115	115
Total hours	1,045	1,045	1,045

Note: The school year consists of 190 working days. Students should attend not less than 1,045 hours per year and no more than 32.5 hours per week. (Information provided by the Department of Education, August 2003).

Nova Scotia

The public school system consists of thirteen years of education, from Grade Primary (P) through Grade XII. The system is organized into three levels: elementary (Grades P–VI); junior high (Grades VII–IX); and high school (Grades X–XII). Currently, the Department of Education and Culture and school boards are exploring ways to strengthen middle level education. The school year normally extends from



approximately 1 September to the following 30 June, with 195 teaching days being required. Instructional time each day totals a minimum of five hours (Grades I–XII). Some high schools have divided the year into two semesters with formal examinations written in January and June. Other high schools use a whole-year arrangement in that final exams are written in June each year. In addition, some high schools have features of both systems.

Elementary school grades must include: language arts, mathematics, art, health, physical education, music, science and social studies for all children in each year's programme. French or Gaelic or *Mi'kmaq* is compulsory beginning in Grade IV. French immersion programmes are also available.

Courses are organized to provide a three-year period of study in Grades VII, VIII and IX. The subjects that are compulsory and elective for each grade are as follows: (a) Grade VII: the compulsory courses are English language arts, French (or *Mi'kmaq* or Gaelic), social studies, mathematics, science, personal development and relationships, physical education; at least one elective course taken from music, industrial arts technology, family studies, or art is required; (b) Grade VIII: the compulsory courses are English language arts, social studies, mathematics, science, personal development and relationships, physical education; at least one elective course taken from music, French, Gaelic, *Mi'kmaq*, industrial arts technology, family studies or art, is required; French (or *Mi'kmaq* or Gaelic) will become compulsory for Grade VIII students in the school year 1998/99; (c) Grade IX: the compulsory subjects of English language arts, social studies, mathematics, science, personal development and relationships, physical education; at least two of the elective subjects taken from music, French, Gaelic, *Mi'kmaq*, industrial arts technology, family studies and art, are required for a full year's work. French (or *Mi'kmaq* or Gaelic) will become compulsory for Grade IX students in the 1999/2000 school year; at that time only one course from the list of electives will be required.

Courses leading to a high school graduation diploma provide a three-year programme of study in Grades X–XII. Students are required to take certain credits from the following three groups: language, communication and expression; science, mathematics, and technology; and personal development and society. In addition, French immersion certificates are offered to those students meeting the criteria for this programme. A credit is granted in recognition of successful completion of a high school course planned to contain work that would normally be completed in a minimum of 110 hours of instructional time.

Examinations are locally determined and marked, and achievement scores are normally reported in percentage form at the secondary level. In addition, Nova Scotia is presently working with the other Atlantic provinces to develop examinations to match the common core curriculum in Grade XII mathematics, language arts and science. These will become available over the next few years.

Records are maintained by the schools and transcripts issued as required. A provincial registry is not maintained. Promotion by course shall be the policy of the school. A student who fails to make satisfactory progress in a course at the high school level, but who performs satisfactorily in others, should be permitted to take the



course work of the next level in those courses in which he/she has made adequate progress to enable him/her to do so.

The new Education Act, passed in January 1996, places greater emphasis on students in the classroom. Nova Scotia is developing a new curriculum at the elementary and secondary levels; planning of personalized programs for children in difficulty; reform of cooperative education, school-work transition and entrepreneurial education programmes, as well as other options available, which will help high schools serve the interests and abilities of students more effectively. Various school-business partnerships are helping improve schools faster, through broad participation by schools and the community, technology and the latest designs. Lifelong learning and education are encouraged through local literacy programmes, career guidance services and education in the workplace.

The new Education Act also provides for the creation of a board for the education of Afro-Canadians and a board for the education of the Mi'kmaq, with the role of guiding the Minister on programs and services to be delivered to these communities, so that they have the benefit of a supportive learning environment.

Nova Scotia. Elementary education (Grades I–VI): recommended time allocation (English programme)

Subject	Recommended time allocation (in hours)					
	Primary programme			Elementary programme		
	I	II	III	IV	V	VI
Language arts (English)	7.5	7.5	7.5	7.5	7.5	7.5
Mathematics	3.75	3.75	5	5	5	5
Physical education						
Social studies						
Second language	–	–	–			
Science						
Visual arts						
Health						
Music						
Total hours per week	18.75	18.75	23.75	23.75	23.75	23.75

Source: Information provided by the Department of Education, August 2003. All the subjects shown in the table above are mandatory, but time allotment requirements exist only for English and mathematics. The school year consists of 195 instructional days.

Note: In Francophone schools, English must be offered beginning in Grade III. In English schools, core French must be offered beginning in Grade IV. There must be a minimum of 225 minutes of teaching per day in the first two years and a minimum of 285 minutes in Grades III–VI. Principals and teachers are responsible for ensuring that a reasonable and productive balance of time exists among all subjects areas to enable students to achieve designated curriculum outcomes. In each curriculum area, some outcomes and clusters of outcomes requires allotment of instructional time, while others may be integrated effectively with those of other subject areas. Integrated curriculum units reflect and illuminate connections among the outcomes in various subject areas.

Nunavut

Created in 1999, Nunavut has set the priority of training a new generation of young Inuit in administration and policies to manage the Territory, and of introducing curriculum in the Inuktitut language for the Inuit as well as the non-Inuit population, especially in the workplace.

Through its network of school boards and school administrations as well as Arctic College, Nunavut is completing its secondary curriculum and providing continuing education to the Inuit population by delivering services and programmes focused on career development and teaching traditional and modern science. Nunavut is working in partnership with several institutions, such as banks (loans and scholarships), the Nunavut Teachers' Association, Tungasuvvingat Inuit, a resource centre in Ottawa, the Baffin Region Literacy Committee, the Inuit Cultural Institute, Nunatta Campus and the Nunavut Literacy Council.

The school year varies from start dates in early August through September to end dates from early May through June of the following year. The exact number of instructional days varies; the current Education Act legislates 195 days. Senior secondary courses can be timetabled as year-long courses or in semesters with double periods in a subject area offered for only a half year. In senior secondary schools, courses are generally offered once a year. Credit toward graduation is based on 25 hours of study per credit. Currently, 100 credits are required for graduation.

Nunavut. Elementary education (Grades I–VI): recommended time allocation

Subject	Recommended time allocation (in hours)					
	I	II	III	IV	V	VI
Language of instruction (Inuktitut or English)	210	210	210	210	210	210
Another language (English or Inuktitut)	90	90	90	90	90	90
Mathematics	180	180	180	180	180	180
Science	90	90	90	90	90	90
Social studies	90	90	90	90	90	90
Physical education	90	90	90	90	90	90
Career and technology studies	60	60	60	60	60	60
Health	60	60	60	60	60	60
Fine arts (art, music, drama)	60	60	60	60	60	60
Unscheduled instruction	67	67	67	67	67	67
Total hours	997	997	997	997	997	997

Note: Nunavut will continue to follow the guidelines of the Northwest Territories until the Education Act is written and the system revised. The school year consists of 190 working days. At kindergarten, children attend no more than 570 hours per year, or approximately 3.5 hours per day. In Grades I–VI, pupils should attend not less than 997 hours per year and no more than 30 hours per week. (Information provided by the Department of Education, August 2003).



Numavut. Junior secondary education (Grade VII–IX): recommended time allocation

Subject	Recommended time allocation (in hours)		
	VII	VIII	IX
English	210	210	210
Inuktitut	90	90	90
Mathematics	180	180	180
Science	90	90	90
Social studies	90	90	90
Physical education	90	90	90
Career and technology studies	60	60	60
Health	60	60	60
Fine arts (art, music, drama)	60	60	60
Unscheduled instruction	115	115	115
Total hours	1,045	1,045	1,045

Note: Nunavut will continue to follow the guidelines of the Northwest Territories until the Education Act is written and the system revised. The school year consists of 190 working days. Students should attend not less than 1,045 hours per year and no more than 32.5 hours per week. (Information provided by the Department of Education, August 2003).

Ontario

The school year extends from the first week in September to the last week in June. A minimum of 190 instructional days is required. There are scheduled break during the months of December and March. For most secondary schools, the courses offered are on a semester basis or for the full school year. French-language secondary schools in Ontario are subject to essentially the same course requirements as English-language schools. Curriculum guidelines for all subjects except English, English as a second language, and French as a second language, are available in the French language. Separate history and contemporary studies guidelines have been developed for use in English- and French-language secondary schools.

The Ministry of Education does not set provincial examinations for secondary school. Student achievement is assessed locally, usually within the school, and is based on the teacher's professional judgement of the student's level of attainment. This judgment involves observation and assessment of a number of factors, including tests and examinations. Student achievement is normally recorded in terms of letter or numerical percentage grades. Schools are required to maintain records of assessment for each student in the Ontario Student Record (OSR).

Established in 1996 as an arm's length agency, the Education Quality and Accountability Office (EQAO) is responsible for ensuring greater accountability and quality in the elementary and secondary education systems in Ontario through collection, evaluation, and reporting of information on educational assessment and quality. A significant part of the EQAO's mandate involves provincial testing of pupils' academic achievement and reporting the results of the testing to the Minister of Education and Training and the general public. The EQAO managed Ontario's participation in the Third International Mathematics and Science Study (TIMSS), the School Achievement Indicators Programme (SAIP) through CMEC, an assessment of 140,000 Grade III students across Ontario in reading, writing, and mathematics, and



tested a sample of Grade VI students in mathematics. In October 1997, the EQAO published *The Report on Achievement*, to announce the findings of their research.

The Ministry of Education has developed a totally new provincial curriculum. Provincial standards have been set for teaching time and classroom size, and to improve the quality of education for exceptional children in Ontario schools. The education system is becoming more accountable through the administration of tests to students throughout the province, the appraisal of teaching staff, and the use of report cards that are easier to understand. Steps have also been taken to improve guidance of students for course selection and their future career plans. The new curriculum requires students in all elementary classes to study technology. Elementary classes learn to read and write earlier and also learn mathematics skills earlier. The reforms have been made with the vision of providing students in Ontario the latest knowledge and skills to make their full contribution to a highly competitive global economy and to become responsible citizens in their respective communities. The new curriculum's main focus is on preparing students for success in the labour market or in learning programs at college and university.

The Ministry has developed curriculum policy documents for each discipline. These documents contain information on the course that can be offered by a school. For every course offered at the secondary level, the new curriculum outlines clear and detailed curriculum expectations. These are two sets of expectations. The overall expectations describe in general terms the knowledge and skills that students are expected to demonstrate at the end of each course. The specific expectations describe the expected knowledge and skills in greater detail. In addition, for every discipline, the curriculum provides detailed descriptions of achievement levels that will assist teachers in their assessment and evaluation of students' work and promote consistency in these practices in schools across the province.

Prince Edward Island

All school activities are generally organized on a yearly basis with the school year extending from approximately 1 September to 30 June. The number of days in the school year may vary from 195 to 197. The instructional time each week is 1,500 minutes. At the senior high level, many schools operate fully or partially on a semester system. There are two equal semesters in the school year. At the senior high level, each credit or course must be allotted 110 hours for instructional purposes. This is true for both compulsory and non-compulsory courses.

A three-year programme has been organized for the intermediate grades. At the senior high level, the curriculum has been organized to provide a three-year period of study. Examinations are prepared and marked locally. No provincial examinations are used. Achievement scores are reported in percentage or letter grades. Since the province does not maintain a provincial registry of students records, schools are required to maintain adequate records and issue transcripts.

Recently, the curriculum and education system have been renewed in Prince Edward Island. The Department of Education has taken many actions to improve programme and student assessment. It has also focused on upgrading teachers' knowledge and skills in student assessment, establishing committees to develop

shared and clear methods for reporting on curriculum and student performance, and developing students' information technology skills.

Alternative education programmes have been implemented to meet the needs of students for whom traditional teaching is not effective and who have dropped out of school or are at risk of dropping out. The alternative education project attempts to provide an alternate short-term solution to conventional classroom instruction, with a long-term objective of returning these young people to school.

Other initiatives in Prince Edward Island have focused on an outcome-based curriculum, innovative in-service teacher training programmes, partnerships with the private sector and other organizations, and training for teachers and administrative officials. Measures have also been adopted to strengthen accountability, such as the publication of tangible results in annual reports, a three-year plan describing the Department's policies and orientations, regional performance indicators, standards applicable to programs and services.

Prince Edward Island has also adopted initiatives linked to lifelong learning; viable, high quality post-secondary and adult education programmes adapted to the needs of its population; an education and literacy strategy for adults and students; a strategy for work force training programmes; and upgraded career guidance courses.

Prince Edward Island. Elementary education (Grades I–VI): weekly time allocation (flexible integrated model)

Subject	Weekly time allocation (in %)	
	I–III	IV–VI
English language arts	45	30
Mathematics	20	20
Science	3	5
Social studies	3	5
Visual arts	5	5
Music	5	5
Health and family living	4	5
Physical education	5	5
Core French	–	10
Locally determined time	5	5
Recess	5	5
Total	100	100

Source: Information provided by the Department of Education, September 2003. The flexible integrated model above is based on the belief that students' achievement will result from a combination of discrete and connected teaching-learning experiences. It is understood that there are commonalities among the outcomes for the curriculum areas of language arts, mathematics, science, social studies, art, and health and family living, and connections will be made wherever it is logical and natural to provide for integrated learning experiences. A typical school day lasts 300 minutes including recess. The school year consists of 186 instructional days per year.



Québec

The school year consists of 180 days of instruction. Children may be admitted to pre-school education if they will have turned five before 1 October of the current school year and their parents have applied for their admission. Children with disabilities and children living in economically disadvantaged areas who will have turned four before 1 October of the current school year may receive special educational services: half-time pre-school or parenting sessions.

Kindergarten is followed by elementary school. The school week is five days long and it consists of twenty-three and a half hours of instruction. Elementary school lasts six years, divided into two three-year cycles. A seventh year is a possibility for students who experience difficulties.

Secondary school lasts five years, divided into two cycles. The school week is five days long and consists of a minimum of twenty-five hours devoted to instruction. Cycle I, that lasts three years, focuses on basic subjects, although the timetable in Secondary III allows time for a 4-credit elective. In Secondary Cycle II, students continue their general education while exploring a variety of avenues through elective courses before going on to college studies or vocational education leading to a trade.

Students obtain their secondary school diploma or secondary school vocational diploma in accordance with the requirements established in the basic school regulations. Students must pass certain courses in their five years of secondary school studies; compulsory subjects may be supplemented by courses developed locally. Secondary school students who pass the compulsory courses of Secondary IV and V receive a secondary school diploma.

The evaluation of students' learning is a responsibility shared by the *Ministère de l'éducation* and the school boards or private schools. School boards and private schools are authorized to prepare and administer examinations in most disciplines. The *Ministère de l'éducation* prepares the uniform examinations for Secondary IV and V. Students must pass these compulsory examinations to obtain a diploma. The passing mark is 60%. While the programmes of study are prescribed by the *Ministère de l'éducation*, teaching methods are to a large extent left to the discretion of the school boards, schools, and teachers. Textbooks used in the schools are approved by the Minister.

In Quebec, education reform is now underway. The missions of schools at the elementary and secondary levels are to develop students' intellectual activities and transfer knowledge; to teach students to be responsible citizens and to live together more effectively, and to help young people successfully complete a school programme or successfully integrate into society by mastering occupational skills.

The changes made to the content and organization of learning must comply with certain principles and form part of a perspective that promotes the success of all students. Certain conditions therefore must be met: (a) curricula must be stripped of all accessory elements that have been added and must focus on the essentials such as mastery of the basic knowledge and skills in language, science, mathematics, history and art, personal development, and the acquisition of work methods; (b) the cultural

content of the "school menu" must also be enriched; (c) for student success, school and academic requirements must be known and accepted by students, teachers and parents; therefore, these requirements must appear clearly in the table of subjects, the curriculum, classroom assessment methods, teaching material, and work assigned to students; (d) special attention must be paid to each student, so that each is provided with the best education possible, and with every opportunity to develop their talents and skills to a full potential; this accompaniment, if consistent and appropriate, will prevent their exclusion.

Course content is to include languages, technology, science and mathematics, the social world, the arts, and personal development. Schools must also continue the teaching of skills and attitudes that do not strictly fall within the exclusive field of teaching disciplines and therefore must be incorporated into all educational activities organized by schools. These cross-skills can be defined as intellectual skills, methodological skills, attitudes and behaviours, language skills.

Quebec. Primary education (Grades I-IV): suggested weekly lesson timetable

Compulsory subjects	Number of weekly hours in each grade			
	First cycle		Second cycle	
	I	II	III	IV
Language of instruction	9h	9h	7h	7h
Mathematics	7h	7h	5h	5h
Sub-total	16h	16h	12h	12h
<u>Non-distributed time:</u>	7h30m	7h30m	11h30m	11h30m
Moral education or moral and religious education				
Second language (French or English)				
Arts (two subjects among the following: drama, visual art, dance, music)				
Health and physical education				
History, geography and citizenship education	-	-		
Science and technology	-	-		
Total weekly hours	23h30m	23h30m	23h30m	23h30m

Source: Quebec, 2003. In a typical school year there must be at least 180 days devoted to teaching activities and student services (Canadian Education Association, 2001).



Quebec. Third cycle of primary education (Grades V and VI): suggested weekly lesson timetable

Compulsory subjects	Number of weekly hours in each grade	
	V	VI
Language of instruction	7h	7h
Mathematics	5h	5h
Sub-total	12h	12h
<u>Non-distributed time:</u>	11h30m	11h30m
Moral education or moral and religious education		
Second language (French or English)		
Arts (two subjects among the following: drama, visual art, dance, music)		
Health and physical education		
History, geography and citizenship education		
Science and technology		
Total weekly hours	23h30m	23h30m

Source: Quebec, 2003.

Quebec. Secondary education: weekly lesson timetable

Compulsory subjects	Number of credits per year in each form				
	First cycle			Second cycle	
	I	II	III	IV	V
First language (French or English)	6	6	6	6	6
Second language (English or French)	4	4	4	4	4
Mathematics	6	6	4	6	4
Physical education	2	2	2	2	2
Moral education or moral and religious education	2	2	–	–	–
Ethics and religious culture (*)	–	–	–	2	–
Arts (one subject among the following: drama, visual art, dance, music)	4	4	2	–	–
Biology	–	–	4	–	–
Ecology	4	–	–	–	–
<i>Éducation économique</i> [Principles of economics]	–	–	–	–	4
Geography of Quebec and Canada	–	–	4	–	–
Geography (general)	4	–	–	–	–
History of Quebec and Canada	–	–	–	4	–
History (general)	–	4	–	–	–
Physical sciences	–	4	–	6	–
Home economics	–	4	–	–	–
Career guidance	–	–	1	1	1
Personal and social development	2	–	1	1	1
Introduction to technology	–	–	4	–	–
Electives	2	–	4	4	14
Total credits per year	36	36	36	36	36

Source: Quebec, 2003. A credit corresponds to 25 hours of instruction.

(*) Compulsory subject to be introduced in 2004–05.

Saskatchewan

The school year of 197 days has traditionally been from 1 September to 30 June of the following year, with some minor variations from system to system. Most secondary-level school systems divide the year into two equal semesters with the term break falling at the end of January. In recent years, a gradual shift has been occurring in the school year. A number of schools are starting earlier in the fall, some as early as the second week in August, and ending earlier in the spring, some as early as the last week in May, with the semester break occurring at Christmas. Elementary, middle and secondary levels have approximately 1,500 minutes per week of instructional time.

Each course at the secondary grade level is assigned a credit value that may vary from course to course. Most courses carry a credit value of one (1.0) that approximates 100 hours of classroom instruction. There are also opportunities for courses with a half (0.5) credit value.

There are no departmental examinations for Grades I–XI. At the secondary level (Grades X–XII) schools report achievement to the Department in percentage



grades. A minimum percentage mark of 50 is required to earn credit in any course. There are departmental examinations (machine scored and hand marked) for the academic Grade XII subjects that students are required to write if the teacher is not accredited for that subject. Final standing in the subject is determined by combining the school mark and the Department mark; 60% from the teacher and 40% from the Department exam. Some courses that are under development or being revised continue to have a 50/50 blend. These courses will change to a 60/40 blend in year one of implementation of the new Core curriculum courses. Report cards are issued at the school level. The official Record of *Secondary Level Achievement* (Transcript) is issued centrally by Saskatchewan Education.

An action plan launched in 1993 is a strategy designed to enhance the well-being of children, young people, and families. This cooperative process is designed to develop a joint method for addressing issues related to children. Schools, professional staff in public health, social workers, and other specialists work together to deliver integrated services to children, young people, and their families.

In May 1995, the Department announced the implementation of a provincial multimedia learning strategy, which includes a roll-out of a multimedia learning network and the issues of grants for installation of cables in Saskatchewan schools and development of educational multimedia software. The Community Schools Programme has been in operation since the early 1980s. The programme provides enhanced support services to 17 schools in underprivileged urban neighbourhoods. Approximately 40% of students in community schools are of Aboriginal origin. The programme encourages parents and the community to take part in decisions made in the schools and delivers supplementary programmes and services to students, including nutrition programmes, cultural activities, and opportunities to use local community resources.

In conjunction with the main education partners, the Department of Education has developed the Saskatchewan Indicators Programme, which strives to: promote an excellent learning environment for all students and providing information on achievement of Saskatchewan's education goals; provide support for the decision-making process, planning, and policy development at all levels of the education system; and generate informed dialogue on education. A full-cycle curriculum review has been completed in compulsory subjects from kindergarten to Grade XII. Updating the curriculum is an on-going process nicknamed *evergreening*. The common core of the curriculum is interactive, continually renewed, and distributed electronically.

Saskatchewan. Elementary education: weekly lesson timetable

Subject	Weekly time allocated to each subject (in minutes)				
	I	II	III	IV	V
<u>Required areas of study:</u>					
Language arts	560	560	560	560	560
Mathematics	210	210	210	210	210
Science	150	150	150	150	150
Social studies	150	150	150	150	150
Health education	80	80	80	80	80
Arts education	200	200	200	200	200
Physical education	150	150	150	150	150
Total weekly time (in minutes)	1,500	1,500	1,500	1,500	1,500
Locally-determined options (*)	0-300	0-300	0-300	0-300	0-300

Source: Saskatchewan Education, 2000. (*) Time for locally-determined options may be gained by reducing the required areas of study by no more than 20% in any subject. The school year 2001/02 consists of 197 days (Canadian Education Association, 2001).

Saskatchewan. Middle level education (lower secondary): weekly lesson timetable

Subject	Weekly time allocated to each subject (in minutes)			
	VI	VII	VIII	IX
<u>Required areas of study:</u>				
Language arts	510	300	300	300
Mathematics	210	200	200	200
Science	150	150	150	150
Social studies	150	150	150	150
Health education	80	100	100	100
Arts education	200	200	200	200
Physical education	150	150	150	150
<u>Practical and applied arts:</u>				
Career guidance	50	50	50	50
Survey course (from September 2004)	-	75	75	75
Locally-determined options (*)	0-300	125-300	125-300	125-300
Total weekly time (in minutes)	1,500	1,500	1,500	1,500

Source: Saskatchewan Education, 2000. (*) Time for locally-determined options may be gained by reducing the required areas of study by no more than 20% in any subject.

Yukon

The school year usually extends from the first week of September through the third week of June, for a total of 190 days and consists of 950 hours, fifteen of which are specified for non-instructional school activities. The education programme is divided into three levels: primary (kindergarten to Grade III), intermediate (Grades IV to VII) and secondary (Grades VIII to XII). The standard time allotment for secondary courses is 120 hours per course per year. Instructional time allotments for Grade VII courses reflect time allotments for elementary schools, with their greater emphasis on



language arts and mathematics. Time allotments may vary somewhat due to the constraints of the various school organizational patterns; for example, time allotments for Grade VIII courses in K-8 schools may be closer to elementary school time allotments than to standard secondary course time allotments.

The curriculum is organized to provide for three years of study at the junior secondary level (Grades VII-IX) and three years at the senior secondary level (Grades X-XII). In Grades VII and VIII most students take a common programme that includes: English language arts; social studies; physical education/health/guidance; mathematics; science; French and/or Native language; and music/art/drama. Grade VIII students also take home economics and/or industrial education. In Grades IX and X most students take a required common programme augmented by two or more electives. The required common programme includes: English; social studies; physical education/health/guidance; mathematics; and science. In addition, Grade IX students are required to take French and/or Native language.

In Grades XI and XII, students take a limited required common programme and a minimum of four (preferably six) electives over the two years. The required common programme for Grade XI includes: English communications, social studies, physical education/health/guidance, and mathematics. The required common programme for Grade XII is an English communications course. Marks A, B, C+, C, and Pass are acceptable for the granting of credit or standing. Transfer credit can be awarded by the principal. Students in Grade XII write the British Columbia provincial examinations in all academic subjects. Scores in these exams form 40% of the final grade awarded in the subjects.

Yukon is a full partner in the Western and Northern Canadian Protocol (WNCPP). This protocol supports the development of common curriculum frameworks for Western and Northern Canada. Within these frameworks, the British Columbia programme of studies (see above) forms the basis of the Yukon curriculum. This curriculum is frequently adapted to reflect local needs and conditions.

Curriculum reform at the elementary and secondary levels is taking the following approaches: mobilizing the education sector to strengthen training and post-secondary education; ensuring that obligations are met for the cultural and linguistic heritage of First Nations; supporting new and innovative teaching programs for people of all ages including socio-psychological assistance, early intervention, remedial reading, literacy, distance education and Internet access; eliminate violence and promote safety and security in our schools through initiatives such as emergency planning policies, access to information, the battle against harassment, school issues and sexual equity; forging constructive relationships with First Nations, parents, students and educators by consulting the private sector and labour unions; assisting school boards in their work and recognize the role, interests and participation in the decision-making process by elected school board officials.

Schools have an inclusive philosophy for the education of students with special needs. To support this philosophy, the Department of Education uses a non-categorical model for allocating special education resources. Yukon Schools are among the most 'connected' in Canada.



Assessing learning achievement nationwide

In Canada, the trend towards public accountability is pervasive. Accountability means clarifying the roles of all the players in the system, with mechanisms to assess whether these roles are fulfilled. It also means letting parents and community members have a greater say through school or parent councils, a development seen across the country. Assessment also serves accountability. It implies a more open approach to sharing information with parents and the general public, about the good news and the bad. Until the introduction of the School Achievement Indicators Programme (SAIP), coordinated by CMEC, the country was without a national assessment programme. A number of jurisdictions introduced large-scale testing in attempts to measure systems, sub-components of the system (e.g. boards or schools), or individual students. Such accountability measures have swept across all jurisdictions.

The SAIP is looked upon by ministers of education as one strategy to assist ministries in the evaluation of student achievement and to identify priorities in education. In April 1993, an assessment of mathematics content and mathematics problem-solving was administered under the SAIP to a random sample of 13- and 16-year-old students from all provinces and territories, except Saskatchewan (which chose to concentrate on its own indicators and assessment programmes). The indicators are arrayed at five levels of increasing difficulty and complexity. The results for the mathematics content assessment indicate that 64% of the 13-year-olds sampled are achieving at level 2 or above, and 60% of the 16-year-olds are at level 3 or above. Of some concern are the approximately 40% of 16-year-olds who are not achieving as high as level 3, since the concepts and skills of that level represent content usually taught to students before they are 16 years old. In mathematics problem solving, there is a marked increase in the number of students performing at level 3 and above at age 16, as compared with age 13. This gain is slightly more evident for male students than for females. However, very few students reached levels 4 and 5.

A SAIP reading and writing assessment was administered in April 1994 to a random sample of 50,000 thirteen- and sixteen-year-old students. In the reading assessment, a majority read well at age 13 (80% at level 2 or better), and very well at age 16 (72% at level 3 or better). In both age groups, girls performed better than boys, and French students better than English students. These results, however, must be approached with caution: although every effort was made by SAIP to produce equivalent assessments for the two linguistic groups, equivalency is difficult to achieve. In the writing assessment, a large majority of students wrote well at age 13 (90% at level 2 or better), and very well at age 16 (80% at level 3 or better). In both age groups, girls performed better than boys, and English students better than French students.

In April and May 1997, the SAIP mathematics assessment was administered to a random sample of students drawn from all jurisdictions. Approximately 48,000 students made up the total sample—26,000 13-year-olds and 22,000 16-year-olds. About 36,000 completed the mathematics assessment in English, and 2,000 in French. Students' understanding of mathematics content and their ability in mathematics problem-solving were assessed. Students were randomly assigned to an assessment of



either content or of problem solving. The content component focused on their knowledge of numbers and operations, algebra and functions, measurement and geometry, and data management and statistics. The problem-solving component covered their skills with regard to a range of problems and solutions including the use of numbers and symbols; the ability to reason and to construct proofs; providing information and making inferences from databases; pursuing evaluation strategies; and demonstrating communication skills.

In 2001, an assessment of mathematics content and mathematics problem-solving was administered under the SAIP to a random sample of 13- and 16-year-old students from all provinces and territories. The indicators are arrayed at five levels of increasing difficulty and complexity. The results for both the mathematics content and problem-solving assessment indicate that two thirds of the 13-year-olds sampled are achieving at level 2, and half of the 16-year-olds achieved level 3. For the content component of the mathematics assessment, significantly more 13-year old students achieved level 2 in 2001 than in 1997. However, very few students reached levels 4 and 5.

A SAIP reading and writing assessment was administered in 1998 to a random sample of 13- and 16-year-old students. In the reading assessment, a majority read well at age 13 (75% at level 2 or better), and very well at age 16 (72% at level 3 or better). In both age groups, girls performed better than boys: over 15% more 13-year-old females than males achieve at least level 2 performance, and almost 22% more 16-year-old females than males achieve at least level 3 performance. In the writing assessment, a large majority of students wrote well at age 13 (95% at level 2 or better), and very well at age 16 (85% at level 3 or better). In both age groups, girls performed better than boys: almost 20% more 13-year-old females than males achieve at least level 3 performance. Three per cent more 16-year-old females than males achieve level 5 performance.

In 1999, a random sample of 13-year-old and 16-year-old students from all provinces and territories were tested on their general knowledge of science concepts, their science skills, and their ability to apply these concepts and skills to the world around them. Achievement was described over five levels, representing a continuum of science literacy acquired by students over the entire elementary and secondary school experience. Level 1 describes the very early stages of literacy and awareness of the world around. Level 5 describes the functional literacy acquired by a student who has completed a full range of specialized science courses at or near the end of secondary school.

Students completed a written component consisting of multiple choice and short-answer questions about science. Nearly three-quarters of 13-year-olds were able to reach level 2, where they demonstrated such abilities as comparing various plant and animal adaptations, and identifying technologies that influence science, and science knowledge that leads to new technologies. Over 76% of 16-year-olds reached level 3 and were able to demonstrate such abilities as using chemical properties to compare and classify substances and analyse experiments and judge their validity.

Another component consisted of seven practical, hands-on tasks that measured their science inquiry and problem-solving skills. In this practical task assessment,



90% of 13-year-olds and over 95% of 16-year-olds reached level 2 where they can demonstrate such skills as identifying appropriate procedures and important variables.

Differences in both the written assessment and practical task achievement of both 13-year-olds and 16-year-olds are significant at levels 3, 4, and 5. In each case a significantly higher proportion of students reached these levels in 1999. This demonstrates a general increase in the sophistication of science understandings and capacity for application by Canadian students in the period 1996-1999.

One of the most noteworthy results showed that there was little statistical difference in achievement between boys and girls for either type of test. In both age groups, girls performed as well as boys in the practical tasks. This data provides evidence of the positive impact of the many initiatives taken across Canada to create classroom environments that encourage young women to pursue science interests. While results do vary from jurisdiction to jurisdiction, and in some cases are significantly different, for the most part, results from the provinces were closely grouped, showing that achievement is similar in many provinces.

According to the *Report of the Pan-Canadian Education Indicators Program 2003* (PCEIP), the pan-Canadian secondary school graduation rate in 2000 was 78%, with 83% of girls graduating and 73% of boys. PCEIP presents the results of national and international studies that have been conducted in the last few years, including the Programme for International Student Assessment (PISA) by the Organisation for Economic Co-operation and Development (OECD), the Third International Mathematics and Science Study (TIMSS), and the SAIP conducted by CMEC. PISA 2000, which focused on reading, revealed that 15-year-old females performed better than their male counterparts in all provinces. However, gender differences in mathematics and science performance, as measured in the other studies, were slight. SAIP 2002, the pan-Canadian assessment of writing skills, confirmed the PISA 2000 results. Girls consistently performed better than boys at almost all levels in both age groups.

Canadian results on the PISA administered to 15-year-olds in 2003, were among the highest in the world in the literacy domains of reading, science, problem solving, and mathematics. PISA 2003 also revealed that Canada has one of the highest levels of equity in achievement. However, PISA results showed the differing literacy levels across the country that can be attributed, in part, to socioeconomic status, gender, and ethnicity. (CMEC, 2005).

Higher education

Post-secondary education is available in both government supported and private institutions, which offer degrees, diplomas, certificates, and attestations depending on the nature of the institution and the length of the programme. Universities and university colleges focus on degree programmes but also offer diplomas and certificates, often in professional designations. The non-degree-granting institutions, such as colleges, community colleges, and technical and vocational institutions, offer diplomas, certificates, and, in some cases, two years of academic credit that can be transferred to the university level. The *collèges d'enseignement général et*



professionnel (cégeps) in Quebec offer a choice of two-year academic programmes that are prerequisite for university study or three-year vocational and professional programmes that prepare students for the labour market. All “recognized” post-secondary institutions in Canada have been given the authority to grant academic credentials by their provincial or territorial government through their charters or legislation that ensure mechanisms for assessing the quality of the institution and its programmes.

Universities usually offer undergraduate (bachelor’s) and graduate (master’s and doctoral) programmes. In degree-granting institutions, the language of instruction is primarily English, though, in many cases, courses are offered in French or in either language. Some English-language universities authorize French-speaking students to write their papers and examinations in French. These exist mainly in Quebec, but are also found in New Brunswick, Nova Scotia, Ontario, Manitoba, Saskatchewan, and Alberta. There are more than 10,000 undergraduate and graduate degree programmes offered in universities, as well as professional degree programmes and certificates.

Canadian higher education is a constitutional responsibility of the provinces and territories. Universities are relatively autonomous, board-administered institutions created through provincial acts of legislature, with responsibility for all academic matters, as well as having considerable flexibility in financial management and programme offerings. Most universities have a two-tiered (bicameral) governance system, including a board of governors (for finance and policy) and a senate (for programme and admission requirements, degree requirements, and academic planning). The senate recommendations are subject to final approval of the board. Government intervention is usually limited to areas of finance, fees structures, and introduction of new programmes. In some provinces, an intermediary body advises in these matters. Some intermediary bodies have the power to make core funding financial decisions.

A *federated* college or university is responsible for its own administration and has power to grant degrees. An *affiliated* institution has administrative independence, but no degree-granting powers (about seventy of the ninety university-level institutions in the country grant their own degrees; some grant degrees in only a small number of fields, such as theology). A *constituent* institution is subject to the authority of a parent university, in terms of both degree-granting and administration.

Colleges tend to be more closely regulated than universities, since they are important government instruments for policy adaptation. Most colleges have a board of governors appointed by the provincial government or by a municipality. In some cases boards are elected. Government representation on boards is common. Generally speaking, governments influence admission policies, curriculum, planning, and working conditions. Also, members from community, business, communities, and labour provide input either through board representation or by serving on board advisory committees. Most of colleges (community colleges, colleges of applied arts and technology, *cégeps*, technical schools, institutes of applied arts and science, and institutes of technology) came into existence during the 1960s and 1970s, in order to meet the practical demands of secondary school graduates not generally intending to go on to university.



Colleges offer a range of vocation-oriented programmes in a wide variety of professional and technical fields, which may include business, health, applied arts, technology, and social services. These programmes range from six months to three years in duration, with some institutes offering postgraduate diplomas as well. Some of the institutions are specialized and provide training in a single field such as fisheries, arts, paramedical technology, and agriculture. Colleges also provide the majority of the literacy and academic upgrading programmes, pre-employment and pre-apprenticeship programs, and the in-class portions of registered apprenticeship programs. As well, a wide variety of workshops, short programs, and upgrades for skilled workers and professionals are made available. Diplomas are generally awarded for successful completion of two- and three-year college programmes, while certificate programs usually take up to one year. In Quebec, *attestations d'études collégiales* (AEC) are awarded as the equivalent of certificates. University degrees and applied degrees are offered in some colleges and institutes, and others provide university transfer programmes. Colleges work very closely with business, industry, labour, and the public service sectors to provide professional development services and specialized programmes and, on a wider basis, with their communities to design programmes reflecting local needs.

In 1996, 48% of Canadians between the ages of 25 and 64 had completed post-secondary education. This was 14% higher than in the United States, the country with the next highest percentage. Canada had a higher percentage of post-secondary college and trade-vocational (non-university) graduates than any other country shown, and the second highest percentage of university graduates, behind the United States.

By 1998, 12% of young Canadian women (aged 25 to 29) had less than a high school education and 61% were post-secondary graduates. Young men have not fared quite as well: 14% had not completed high school, while 55% were post-secondary graduates. Nevertheless, both men and women had higher levels of educational attainment than in 1990. The percentage of women among full-time undergraduate enrolment increased from 50% in 1987-88 to 56% in 1997-98. The percentage of women among graduate enrolment also increased, though it remained below 50% in 1997-98. Women account for a higher percentage of part-time than full-time enrolments at each level. In seven out of nine academic disciplines, women account for a strong majority of enrolment. In 1997, 36.4% of the total female population 18-25 years old held a bachelor's degree, compared to only 24.5% of the total male population; at the master's level, the distribution is roughly equal.

There is no national accrediting body in Canada for evaluating universities or programmes. For colleges and universities, external peer review takes place through the Association of Universities and Colleges of Canada (AUCC). Provincial or regional bodies may also oversee quality control. For many professional programmes, regulatory agencies or professional associations evaluate undergraduate and graduate programmes. Finally, all institutions perform some type of self-assessment through internal review.

The important relationship between education and work has been addressed recently in Canada through a variety of innovative programmes. Holland College in Prince Edward Island, for instance, is the first Canadian educational institution to offer a *warranty to employers* for its graduates. The college will retrain in cases where



the knowledge, skills, and values of graduates are deemed unsatisfactory in the workplace. Industry advises the college closely on curriculum and skills-oriented, employment-driven training programmes. Post-secondary institutions, usually colleges, offer training under contract with the private sector, enabling a direct link between education programmes and market needs. Evidence indicates that co-operative programme graduates are about 10% more likely to be hired before the end of their studies or within one month of graduation. Other programmes, resources and services directed toward categories of students who may experience more difficulty in finding a job include: school-business partnerships; target programmes; vocational training programmes; technology training and career advancement programmes; alternating work-study or co-operative education programmes; mentoring programmes; and apprenticeship programmes.

In Ontario, a system of achievement indicators was instituted in the province's colleges to measure satisfaction levels of students and employers. In April 2001, the Ontario government established the Post-Secondary Education Quality Assessment Board to assess proposals for new degree programmes to be offered by colleges and new institutions wishing to grant degrees in Ontario, and to advise the Minister of Training, Colleges and Universities in this area.

The phenomenon of raising tuition fees in post-secondary education needs a special mention. Between 1982-1983 and 1998-1999, government contributions as a percentage of universities' operating revenues dropped from 74% to 55%. During the same period, tuition fees generally doubled, rising from 8% to 17% of operating revenues of the educational institutions in question. Average tuition fees for undergraduate arts programs at university more than doubled Canada-wide; they were C\$3,199 in 1998-1999, compared to about C\$1,500 in 1988-1989.

Increases in the cost of post-secondary education during the 1990s left in their wake a broadening of the public debate and concerns over the rise in student indebtedness. Student indebtedness is a component of the private sector contributions toward education funding. Consequently, the debate about student debt is a part of the larger debate on public vs. private contributions to fund post-secondary education. While the percentage of students resorting to government student loan programmes to help them finance their post-secondary studies has remained relatively stable (approximately 50% of graduates in 1986, 1990 and 1995), the amounts of money they owe on graduating with their degree and for two years afterward increased during the period in question.

In response to the increases in educational costs for students over the past ten years, changes have been made to student financial assistance programmes. For example, student loan limits provided under the Canada Student Loan Programme were increased by 57% in 1994. Also related to increases in educational costs is the interest on the part of various governments and organizations in exploring income contingent loan repayment and other forms of assistance during loan repayment, such as the expansion of interest relief to low-income borrowers during periods of unemployment or under-employment.

Canada has 157 public universities and degree granting institutions and over 175 recognized public colleges and institutions. In 2004-05, there were 785,000 full-



time university students (an increase of nearly 130,000 in the previous three years), as well as 270,000 part-time students. In 2003–04, universities employed 37,000 full-time faculty members. In 2004, universities awarded an estimated 135,000 bachelor's degrees, 26,000 master's degrees, and 4,000 doctoral degrees. In 2003, colleges had over 736,000 full- and part-time students enrolled. Participation in post-secondary education has grown significantly in recent years, whether measured by numbers of enrolments or by the proportion of the population in any given age group who are attending college or university. (CMEC, 2005).

Special education

Students with special needs are accommodated in the public schools in various ways. In some cases, separate programmes are available to meet their needs (withdrawal); in other cases, these students are integrated into the ordinary classroom and follow, as much as possible, the regular programme (integration).

Special needs students are those who are assessed as having any one of the following exceptionalities: cognitive impairment; emotional impairment; learning disabilities; physical disabilities; communications disorders; sensory impairments vision; hearing; multiple disabilities; and other health-related impairments. While many of these exceptionalities are innate, some may manifest themselves as the result of children being the survivors of war or victims of physical or sexual abuse. Finally, in many provinces, special needs students may also include gifted students.

In the 1970s and 1980s, legislation was passed in many jurisdictions with the intention of ensuring that children with special needs had access to suitable education programmes and services. This legislation has been supplemented by a large regulatory framework. A great deal of debate still occurs around what is best for a specific child (integration or withdrawal; the drawbacks of labelling, etc.). The issue of integration in Canada has led teacher federations to demand better professional education for most regular class teachers, many of whom are daunted by the challenges of integration. Integration has also led to the growth in numbers of teaching assistants or aides who help teachers in classes with specific students. Specialized support to assess and place children, and to plan the programme in special education, involves the always in-short-supply services of psychologists, translators, psychometrists, speech pathologists, and counsellors.

In all jurisdictions, cooperative efforts are being made where departments of education are collaborating with other government departments in creating integrated community support and prevention services for children and families. Every jurisdiction has developed or adapted numerous guides and resources to support the learning needs of special-needs students and the information needs of the teachers.

Inclusion and special-needs education was the topic of a lengthy discussion among the ministers responsible for education at the March 2004 meeting of the CMEC. The basic principle that guided this discussion is that every child can learn and every child deserves the opportunity to learn and achieve to the furthest extent of his/her abilities. The models and examples for the education of special-needs students



vary according to the needs of the students, but they all aim at the provision of learning opportunities that enhance the success of all young people.

The Atlantic Provinces Special Education Authority (APSEA) provides educational services, programmes, and opportunities for students who are blind, visually impaired, deaf, hard of hearing, and deaf-blind. In Nova Scotia, New Brunswick, Prince Edward Island, and Newfoundland and Labrador, APSEA helps meet the specific needs of students with sensory disabilities through assessment, direct instruction, consultation, and provision of adaptive equipment and technology. In New Brunswick, the francophone sector of the education department provides similar services to francophone students as those provided through APSEA to students in the anglophone sector.

Private education

Private (sometimes called independent) elementary or secondary schools provide an alternative to publicly funded schools in Canada. All private schools operate outside the regular public system and are administered by an individual, association, or corporation. About one-half of Canadian private schools have a religious affiliation. They may operate in any province or territory if they meet the general standards prescribed by that jurisdiction for elementary and secondary schools. Although in most cases private schools closely follow the curriculum and diploma requirements of the ministry responsible for education, they are independent from the public system and may espouse the life values of the communities they represent. Some private schools deliver certain pedagogical specialties, such as Montessori schools; some focus on certain talents, such as schools for the arts or for hockey; some address the needs of exceptional students, such as schools for the gifted or for the emotionally disturbed. Private schools are generally smaller than public schools (almost 75% have fewer than 200 students), though PTRs are quite similar.

Since 1971, there has been a gradual increase in the private school enrolment in Canada. In 1998/99, 1 out of every 18 children in Canada, or 5.6%, attended a private school for elementary or secondary education, up from 4.6% in 1987/88. In total, 298,000 were enrolled in private schools; just under 5 million went to public schools.

Among the provinces, the proportions were highest in Quebec, where more than 9.2% of children were enrolled in a private elementary or secondary school in 1998/99. In British Columbia, 8.8% of all students were in private schools. The lowest proportions of children in private schools were in the Atlantic provinces and Saskatchewan. Only 0.4% of all children in Newfoundland, 0.6% in New Brunswick, 1.0% in Prince Edward Island, 1.6% in Nova Scotia and 1.3% in Saskatchewan were enrolled in private schools.

Canada does not have any large private universities, but has many private colleges, mainly of religious affiliation, some of which grant degrees. In Quebec, numerous private colleges receive significant public support, as do four degree-granting private colleges in Alberta. It is more likely, however, for private colleges to support themselves through fees and donations.



It should be noted that recent public school choice offerings have served to forestall the growth of private schools by providing parents with an alternative within the public system. For example, in Alberta, the city of Edmonton public board recently approved full funding for a fundamentalist Christian school. In 1991, independent school legislation was introduced in Saskatchewan. The new legal framework balances the educational interests of children enrolled in independent schools, their parents, and the public.

Another private school option that appears to be gaining popularity is tutoring, which is offered by individuals or private agencies specializing in one-on-one or small-group teaching. Such services are typically used after-hours by students from public and private schools. However, it would be fair to say that such services are less affordable for students from a lower socio-economic background.

Over the past decade, a growing number of parents have gone one step beyond private schooling by assuming personal responsibility for the schooling of their children through home schooling. Provinces and territories permit home schooling, but ensure parent accountability through a registration process and guidelines and policies set by jurisdictions for monitoring student progress. Parents of home schooling typically receive provincial funding to defray costs associated with learning at home. In a sense, then, home schooling is privately-located schooling, supported through public funds.

From a more general perspective, privatization of education can occur in subtle or partial ways. The government or the private sector can act as either producer or purchaser of educational services. For example: school construction and transportation is often produced through private contractors, purchased by school boards; monopoly franchises for school food service represents private production and private purchase; tuition fees charged for post-secondary public education are partially private purchases of publicly produced services; indeed, even a small part of public elementary/secondary revenues (about 2.6% in 1994/95) are derived from non-governmental sources. Thus, the production and purchase of Canadian educational services often entails both private and public elements.

Means of instruction, equipment and infrastructure

Education infrastructure is by most standards adequate. Supplies of textbooks, classroom space, cafeterias, and residential accommodation, etc., are not crucial issues. Minor problems do exist, such as overcrowding in some schools, which has led to over-use of portable classrooms.

In the first two months of 1999, Canadian schools by and large had access to the Internet for educational purposes. Eighty-eight per cent of elementary students and 97% of secondary students (junior and senior) attended a school with access to the Internet. In September 1999, almost 100% of secondary schools (junior and senior) were connected to the Internet. The rate of Internet connection was uniformly high in all provinces. Computers are used for educational purposes in over 99% of elementary and secondary schools, with an average of 72 computers per school. The median number of students per computer in a school is five. As of the 2003–04 school year,



virtually all elementary and secondary schools were connected to the Internet, and these computers were available for student use. Students also had access on a very wide basis to word-processing software, educational and drill and practice programmes, spreadsheet and database programs, and presentation software. The enhanced incorporation of information and communication technologies (ICT) into curriculum, teacher training on curriculum and learning management applications, and funding for technology maintenance and upgrades are issues that demand continued attention. Technology in postsecondary education is also being extended to provide institutional information, registration and financial aid services, direct delivery of programs and courses, career counselling and job opportunities, library and research resources, as well as advanced networks for educators and researchers.

All provinces and territories recognize the importance of ICT, not only as a learning subject in the curriculum, but also as an ideal way to deliver educational services. Nova Scotia, for example, has created a huge network linking public schools, municipal libraries, colleges, museums and the Department of Education's administrative offices. The Yukon Education Student Network (YESnet) is a network set up by the Department of Education to enable all Yukon students to access the Internet and the rich, diverse databases it contains, and give students an opportunity to communicate worldwide. In Ontario, the twelve French language school boards have set up a teleconferencing network linking all French language secondary schools and all school board administrative offices across the province.

As an evolving means of instruction, distance education is utilized to a great extent across the country, especially in post-secondary education. K-12 correspondence courses are a brand of distance education with a long history in Canada, originally offered through mainly print-based media. Correspondence enrolments totalled 225,321 for 953 courses in 1994. While technologies other than print are now used, print continues to provide an important distance education medium.

In 1994, 54% of universities and 68% of colleges were active in distance learning, with involvement expected to climb even further. Canada also uses broadcast television education consortia to reach large percentages (usually 95% or more) of households in various provinces. For instance, the Alberta Access Network offers seven credit courses, and Radio-Québec offers forty. Print and telephone (for tutoring, audio-conferencing) are the most common media for distance education; other technologies include videocassettes, audiocassettes, and television. Since only about 22% of Canadian households own personal computers, this medium has not yet been utilized on a grand scale for distance education, because of equity considerations.

Adult and non-formal education

Non-formal education generally lies outside of the traditional educational classroom domain, and may include credit and non-credit education. It includes a broad range of activities, such as structured training, courses, seminars, workshops, and tutorials. Many include some form of computer-assisted instruction. Canadian school boards, jurisdictions, colleges and universities, businesses, and governments offer a wide array of non-formal education, involving literacy, computers, arts and crafts, and



many other topics. Distance education or on-campus media may be used. Adult training for job-related skills can take place in a variety of locations, such as educational institutions, community centres, private business schools, employers' premises.

Adult education has been covered by Quebec education legislation since 1988, in recognition of the considerable expansion of this sector over the past thirty years. Specific services are offered to adults in the secondary, college, and university sectors. Under the legislation, adult education services can be offered in the secondary sector by two networks, one formal (school boards and private institutions) and one informal (independent popular education and literacy groups and private training organizations, including internal corporate programs). The formal network is governed by the adult general training educational services framework, which includes training services, teaching services, training support services and additional services for this client group.

About 3.7 million Canadians participated in job-related adult education/training activities in 1997, or approximately 27% of people aged 25-54.

One out of every three adult workers (or 35%) participated in some type of formal, job-related training in 2002, accessing opportunities to continue learning and to upgrade their skills. The participants received an average of 150 hours of training. Twenty-five per cent of adult workers reported taking employer-supported training programmes, support that might include payment for training, flexible hours, or transportation to training. Participants are more likely to be in management and professional occupations than in blue collar or clerical occupations. Utilities, educational services, and public administration are the industries with the highest rates of participation. Those with higher levels of literacy and education are also more likely to participate in adult education.

Colleges are the primary vehicle for adult education and training for the labour force; universities supply a smaller portion. Community-based groups, largely funded by the provincial, territorial, or federal governments, address special needs such as literacy and serve groups such as the rural poor, the Aboriginal communities, immigrants, displaced workers, and those with low levels of literacy or education.

Apprenticeship is an industry-based learning system that combines on-the-job experience with technical training and leads to certification in a skilled trade. Provincial and territorial governments are responsible for apprenticeship training, and much of the classroom learning is done in the college system. Apprenticeship in Canada is largely an adult programme. Registration in apprenticeship training programmes reached almost 235,000 in 2002, an increase of 40.8% from 1996. Gains occurred in every major trade group, especially the building construction trades.

A recent international survey, the Adult Literacy and Life Skills Survey, revealed that 58% of adults aged 16 to 65 possess literacy skills that indicate they could meet most everyday reading requirements. This leaves a significant number of adults with low-level literacy skills, which can impact their participation in society and in the economy. (CMEC, 2005).



Teaching staff

In the country, two basic models for teacher education exist: a bachelor of education degree taken over four or five years (three years in Quebec); and a post-degree bachelor of education degree taken over one or two academic years. Both models are used for elementary and secondary school teacher training, and are a balance of academic and professional preparation. The professional aspect includes general and subject-specific theories of teaching and learning, and practical experience in the field. Entrance to the secondary school teacher post-degree programmes requires that the previous degree be a major in the subject area in which the student will specialize.

Since the 1970s, both elementary and secondary teacher education programmes have forged closer ties with universities, through the development of faculties of education. As faculties in a university setting, these institutions enjoy a large degree of independence in deciding course content and methods of delivery. Close to fifty universities and institutions offer training leading to teacher certification across the country. Despite the abundance of institutions, only about 10% or so of applicants are accepted for lack of space. High marks are usually the minimum prerequisite for entry into such institutions; letters of reference, work experience, and personal interviews are also increasingly used to screen applicants. For most provinces, there seems to be a considerable imbalance between supply and demand depending on specialty, with a surplus of supply over demand in fields such as English, social studies and religion, and a deficit in science and technology.

All jurisdictions except British Columbia have bilateral or multilateral agreements with the other provinces and territories for the recognition and transfer of teacher credentials. Provincial/territorial ministries and departments have special units to review applicants' transcripts before issuing a teaching certificate. In British Columbia, this role is fulfilled by the College of Teachers, the professional governance body. In the three northern territories, pre-service education is offered in cooperation with institutions in other jurisdictions, with special components that encourage the participation of Aboriginal and Inuit students.

Undergraduate education programmes usually include: primary/elementary and secondary education; vocational education; special education; native and northern education; human kinetics and adult education; as well as special programmes in art, music, industrial arts, second language, religion, day-care, and physical education. For example, the programme at the University of British Columbia has several core courses that all students must take, such as introduction to principles of teaching, curriculum and instruction, and communication. There are also components on special education, native education, and multiculturalism as modules within courses. In the concurrent elementary programme at the University of Regina, students take one introductory education and seven arts and science classes in their first year. The second, third, and fourth years include generic education classes called educational professional studies, methods classes in their specializations, and upper level methodology and/or arts and science classes, along with a graduated practicum (practice teaching). The practicum moves from one day a week in a school (second year) to a semester internship (fourth year). Human relations issues about under-represented groups are examined within the cross-cultural, social studies, and special



education classes. The combination of educational professional studies and field experience is similar in the secondary programme.

The core curriculum of most B.Ed. degree programmes currently includes: general teaching skills; communication skills; classroom management; setting instructional goals; measurement and evaluation; language arts; specific methodologies; child development/learning (educational psychology); sociology of education; history and philosophy of education; school law and policy; a teacher's legal status; the teacher as a member of the profession; an introduction to special education; technology in education; field experience/practicum. Upon completion of the B.Ed. degree programme, graduates qualify for the issuance of a teaching certificate. The type of certificate varies from one jurisdiction to another. Most initial certificates are issued as interim certificates, valid for periods from two years to five years. In Yukon, British Columbia, Manitoba, and Nova Scotia, initial certificates are permanent upon issue.

Interim certificates are made permanent after a specified period of successful teaching, usually two years (one year in the case of Saskatchewan). Some teaching certificates, such as the professional certificate in British Columbia, are valid for all grades. Other certificates across the country include vocational, technical, special education, and principal, each with specific requirements.

The transition from being in a classroom to teaching in one can be extremely stressful. The Northwest Territories has introduced a Teacher Induction Programme to help new and beginning teachers become competent and effective professionals in the classroom and develop an understanding of the local school, community, and cultures. The Programme aims at improving teacher performance, recruiting and retaining teachers, promoting the personal and professional well-being of the new teachers, and transmitting the culture of the system to the teachers. In Yukon, the Department of Education in conjunction with the Yukon Teachers' Association and the Retired Teachers' Association, uses both a mentoring and a collaborative approach for new teachers, giving priority to communities with high staff turnover, recognizing the difficulties sometimes involved in transition to these communities and the often overwhelming expectations placed on new teachers.

Broadly speaking, there are no provincial mandatory requirements for in-service professional development (PD). The responsibility for the development and delivery of PD for teachers can be a shared one that involves the ministries/departments of education, the school boards, the teachers' associations, the universities and, sometimes, nongovernmental organizations with specific areas of expertise

There is some incentive for teachers to upgrade their qualifications in some area of speciality through further university/faculty study. For example, a teacher with a recognized master's degree in a teaching subject or a master's degree in education (subsequently accredited by the ministry or department) will be situated higher on the pay scale according to category. Many school boards subsidize at least some of the costs of these courses if the teacher is already in their employ. Such study is usually undertaken part-time. A variety of workshops, brief courses, summer institutes, and



professional conferences are offered by teachers' federations and other agencies. Some are of general interest, others are highly specialized.

Regional consortia within provinces/territories, usually involving several school boards and/or universities, have increasingly played a major role in offering a variety of in-service programmes. Professional development activities are usually made available to institutions on a cost-recovery basis, although federations may subsidize members for their programmes. Subject councils (e.g. provincial associations of teachers of mathematics) contribute significantly to ongoing development of their members, through conferences, newsletters, or journals, and through professional development programmes, especially for secondary school teachers. Educational television channels in British Columbia, Alberta, Ontario, as well as other provinces, regularly feature programming on specific professional development issues. TFO, the French arm of TV Ontario, provides an electronic bulletin board for education, where teachers and other users can raise questions, share ideas, and debate issues of importance in either French or English. Regional education offices of the ministry/department in several jurisdictions also play an important role in providing ongoing professional support.

In New Brunswick, recent plans for the improvement of professional development include: two additional days in the school year for professional development on curriculum; in-service opportunities for teachers and administrators regarding current research findings and strategies on classroom management; providing school boards with professional development and guidance to further explore the use of various flexible scheduling models to address classroom composition issues; increasing access to professional development in a number of areas through on-line training. The Nova Scotia Department of Education emphasizes quality teaching, outlining actions to train and retain qualified teachers, particularly in specialty areas like mathematics, science, French, and special education. Literacy and mathematics are at the core of professional development for teachers, teacher leaders, and principals. Professional growth plans, including goal setting and monitoring, are put in place to guide teachers in their continuing efforts to stay abreast of new curriculum, technology, and teaching methods. The 2003 Alberta Commission on Learning brought forward twelve recommendations related to the action area called Excellent Teachers and School Leaders, and the government is moving forward on collaborative planning and implementation of ten of them. Among those with implications for teachers' professional development is the requirement that all teachers have targeted annual professional development plans that are directly linked to their schools' improvement plans. Accompanying this is the commitment to develop and implement comprehensive professional development plans for every school jurisdiction and every school. According to Quebec Ministry of Education policy, professional development is a joint venture which requires the participation of teachers, school principals, and the school board. Giving teachers a central role in determining their professional development needs respects the professional autonomy of teachers and promotes a culture of professional development within schools. Through the input of teachers, training has developed beyond in-service activities based on classroom delivery toward new training mechanisms such as self-guided learning, training provided by colleagues, participation in pedagogical productions, and participation in action research projects in information and communications technologies. One way in which the Saskatchewan Teachers' Federation serves its



members is through the provision of extensive resources to build professional development capacity and to directly respond to teachers' needs for information and support.

Technology often plays a central role in delivering professional training. The Newfoundland and Labrador Centre for Distance Learning and Innovation prepares professional development modules and resources for delivery via its multiple course delivery mechanisms. In addition, the Newfoundland and Labrador Teachers' Association is partnering with the province's university and the Department of Education in the development and delivery of professional development programs through a Virtual Teacher Centre—a web-based professional development centre for educators at all levels. As a result of this partnership, educators have the option of participating in professional development activities with colleagues from different schools and communities without the cost and time associated with extensive travel. Manitoba's Strategic Technology-Assisted Professional Learning Environment (STAPLE) provides teachers with interactive learning experiences, allows time for practice in the classroom, accommodates reflection on promising practices, and offers collaboration and mentoring opportunities with other professionals in Manitoba. (CMEC, 2005).

Many school boards require principals to hold a master's degree, usually in educational administration, leadership, or curriculum, before they will be hired. In some cases they must make a commitment to complete the degree within a specific period of time. Administrator associations generally play a strong role in specialized forms of professional development. Ontario requires vice-principals and principals to qualify for a principal's certificate by taking a ministry-approved course, or to require a supervisory officer's certificate for supervisory school board staff and ministry education officers.

In 1996/97, only 37% of educators were men, compared to 43% a decade earlier. In the same year, there were 267,808 full-time educators working in elementary/secondary schools, 29,813 full-time educators in community colleges, and 34,613 full-time educators in universities, for a grand total of 332,234 full-time educators.

While the proportion of women teachers increased at all educational levels in recent years, women are in the majority only at the elementary and secondary levels, where they represented 63% of full-time educators in 1996/97. In universities, women constituted 25% of full-time faculty members in 1997/98, compared to 17% in 1987/88. They also constituted 40% of full-time teaching staff of colleges in 1996/97, compared to 33% a decade earlier. As for post-secondary educators, in 1996/97, 40% of college professors were female, and 25% of university professors.

School teachers' education levels are up sharply over the past two decades. In 1970, only 37% of teachers held a university degree (mainly secondary teachers). At that time, ministry/department expectations for qualifications changed, such that both elementary and secondary school teachers had to upgrade their qualifications to university degree levels. Some upgrading took place within the many newly established faculties of education, which replaced the normal schools and teachers'



colleges that for decades were the mainstay of teacher education. By 1990, about 80% of Canadian teachers had a university degree.

The pay category or position on the grid to which a teacher is assigned is directly related to two factors: years of university education and professional training to a maximum of a master's (sometimes a doctorate) degree in a relevant field; and experience, to a maximum of seven to fourteen years, depending on the school board. The salary gains made by the large cohort of teachers in the 1970s and 1980s are largely attributable to the combination of these two factors, as well as cost-of-living adjustments applied to the entire grid to ensure incomes at any point in the grid kept pace with inflation.

A recent analysis of salaries revealed that as a group, teachers are relatively well paid, on average. However, secondary school and college teachers face relatively weak career and earning prospects, even though this is an important incentive for strong performance on the job. Most salary scales across the country have from ten to fifteen years to reach maximum. Thereafter, except for promotion, there is little if any incentive. In spite of uniform salary scales, on average women earn only about 73.6% of what their male colleagues earn. Salary scales show tremendous variation across the country. Benefits packages also vary widely, in terms of value and coverage, reflecting the results of collective bargaining activities over the years.

From 1982 to 1992, the average workload of full-time teachers increased by one and a half hours (3.8%) at the national level, from 39.4 to 40.9 hours. The average number of hours usually worked by teachers also rose in each province. Administrators working hours also increased significantly and by larger margins. These increased workloads among educators are of interest when compared to the trend in the general population towards shorter work weeks.

In spite of the continuing demands for accountability, most teachers are accountable not only to parents and students, but also through a variety of assessment procedures that have been developed or are in process of development. Many teachers, for example, are required by their employing board of education to undergo a regular review (often every three years), and procedures are in place to assist those who have problems. Furthermore, the establishment of parent councils in many jurisdictions has forced teachers to work more closely with parents in matter formerly regarded as the exclusive domain of educators. Although there has been some trepidation on the part of the latter, the increasing support from parents and the community has been a positive spin-off of this development.

Educational research and information

A 1995 survey identified 213 units researching education in Canada. These units are of several types: universities; community colleges; federal government departments; provincial/territorial ministries; school boards; national organizations; provincial/territorial organizations; and others. Fields of research related to education for these units vary widely, but generally focus on: curriculum, finance, policy, administration, women's studies, language, psychology, history, sociology, and philosophy.



As an example, the University of British Columbia has seven education research units listed in the above mentioned survey, involving a total of 250 faculty, 1,300 graduate students, and numerous support staff (the Faculty of Education, Department of Curriculum Studies, Department of Language Education, Centre for Study of Curriculum and Instruction, Psycho-educational Research and Training Centre, Centre for the Study of Teacher Education, and Centre for Policy Studies in Education).

Education research is also undertaken by the federal government at Health Canada, the Department of Justice, Heritage Canada, HRDC, and Statistics Canada. In addition, Industry Canada sponsors the Social Sciences and Humanities Research Council, which administers grants and fellowships, some education-related, for mainly university research.

A number of Canada's largest school boards spend significant time and effort researching education and/or conducting pilot studies. Many national organizations also have education research as part of their mandate. AUCC, located in Ottawa, employs seven researchers to study the changing environment, university funding, student assistance, and governance.

Provincial/territorial organizations, such as superintendents' associations, teachers federations and associations, and trustee or school board associations, also undertake education research. Other organizations somewhat involved with Canadian education research include the Fraser Institute, the Canada West Foundation, the Assembly of First Nations, the Canada Council on Social Development, the Conference Board of Canada, the Addiction Research Foundation of Ontario, the C. D. Howe Institute, the Institute for Research into Public Policy, the Canadian Tax Foundation, the International Development Research Centre, and the Walter and Duncan Gordon Foundation.

The Canadian Education Statistics Council (CESC), a partnership between Statistics Canada and CMEC, initiated the Pan-Canadian Education Research Agenda (PCERA) in 1997 to bring inter-provincial/territorial research issues that are important to ministers of education and training to the attention of the research community in Canada, and to promote open discussion on these issues with different partners in education. Through commissioning research and holding symposia, PCERA promotes and advances policy-relevant research, and encourages communication among stakeholders in education.

At the first PCERA symposium in February 1999, seven priority themes were developed: the link between school and work; learning outcomes; teacher education; diversity and equity; special needs programming; citizenship and social cohesion; and technology. The topic for research featured in the second PCERA symposium, held in April 2000, was Children and Youth at Risk.

In 2001, the CESC sponsored research on teacher education/educator training. This is a high priority issue for ministries/departments of education and training, and is a research area of importance as it converges with a large number of educational issues and is a major rallying point for research, theory and practice. Research on



related issues will provide relevant and urgently needed information to policy-makers in the area of education and labour-market analysis.

The Pan-Canadian Education Indicators Program (PCEIP) is an ongoing initiative of the Canadian Education Statistics Council (CESC), a partnership between Statistics Canada and CMEC, to provide a set of statistical measures on education systems in Canada. Policy-makers, practitioners, and the general public can use these indicators to develop an understanding of the performance of education systems in Canada and to inform decisions about priorities and directions.

Canadian education research is disseminated through various channels. The primary ones are the Canadian Education Index (of the CEA), ONTERIS (the Ontario Educational Research Information System), and EDUQ (*Éducation Québec*).

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Web resources

Council of Ministers of Education, Canada: <http://www.cmec.ca/> [In English and French. Last checked: October 2007.]

Links to departments and ministries responsible for education in Canada:
<http://www.cmec.ca/educmin.en.stm> [Last checked: October 2007.]

Association of Universities and Colleges of Canada: <http://www.aucc.ca/> [In English and French. Last checked: October 2007.]

Canadian Education on the Web: <http://www.oise.utoronto.ca/canedweb/> [In English. Last checked: October 2007.]

Canadian Information Centre for International Credentials: <http://www.cicic.ca/> [In English. Last checked: October 2007.]

Education in Canada: <http://www.educationcanada.cmec.ca/> [In English and French. Last checked: October 2007.]

For updated links, consult the Web page of the International Bureau of Education of UNESCO: <http://www.ibe.unesco.org/links.htm>